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THE ARCHITECTS' AND BUILDERS' JOURNAL.

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NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause a wastage of effort and materials that could obviously be reduced to a minimum but for casual and erratic purchasing.

A LETTER contributed by Mr. Lionel B. Budden, M.A., to the current issue of the R.I.B.A. Journal, and reproduced by us in a subsequent page, seems to deserve most earnest attention. Its real value consists in its constructive criticism of a system of education that, as we have often hinted, leaves much to be desired *qua* system, independently of its practical issues. If good results have been achieved with inefficient machinery—and we should be by no means disposed to dispute the claim that they have—it may be logically assumed that improved means should imply increased excellence in the product. Mr. Budden's object, however, is not merely to pursue soundness in the constitution as an end in itself, but to secure the practical advantages that should certainly accrue from it. His suggestion that the Board of Architectural Education should include a fair proportion of men who are engaged in the actual work of education ought to have been superfluous. It is simply a counsel of common-sense. But when first the Board was established the practical educationists were not available in sufficient numbers to be taken into account. When they became a fairly numerous body the only question was surely whether they or the Board should take the initiative towards the reform which Mr. Budden now advocates. It is quite natural that the proposal comes from without. Reforming zeal of any kind is seldom centrifugal, and very rarely does a central body voluntarily change its own constitution.

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While, however, it is almost inconceivable that any strong objection can be raised to the principle of Mr. Budden's proposals for change in the constitution of the Board, it is obvious that the details are, as Mr. Budden probably intended them to be, open to question and debate. It is easy to foresee the objection to an *ad hoc* educational body that, while it is unquestionably superior in knowledge and efficiency to one that is of heterogeneous and fortuitous composition, the latter has the advantage in impartiality and in breadth of outlook. To be a pedagogue is not necessarily to be an educationist; and even the educationist has the defects of his qualities. Even in the case of the university senate, there is an observed tendency to put the interests of education below those of educationists; and this is done not consciously nor in any way nefariously, but by a sort of professional instinct which acts automatically along the lines of unrecognised and uncontrollable bias. This objection and this contingency Mr. Budden forestalls, in a manner, by providing that the representatives of schools of architecture shall be counterbalanced (this word bears no invidious sense) by "non-scholastic members," who should be able to check any tendency to exaggerate the merely collegiate view. Mr. Budden's proposals for examination reforms seem to accord with the best modern practice, but their discussion in detail must be postponed to a more fitting occasion. In the meantime, we commend this important communication to the most earnest consideration of all who are interested in the vital subject with which he has grappled courageously as well as constructively.

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A very engaging note of magnanimity persists in the recorded transactions of the Society of Architects. It is conspicuous in a memorandum on the National Housing Competition which we print on a subsequent page. Clause 5 in the conditions of competition issued by the R.I.B.A., and published on page 220 of this Journal dated November 14, 1917, the Council of the Society consider to be wrong in principle, and, moreover, to contravene one of the essential conditions of the competition regulations issued by the Society. It will be remembered, or may be seen on reference, that Clause 5 in question requires the premiated competitors to give up all rights in their drawings, leaving the promoters at liberty to make any use whatever of the designs, and to publish them or exhibit them with the names of the authors attached. This clause undeniably "breaks a custom," if not a principle, and gives a glorious opportunity—"the chance of a lifetime"—to precisians and pedants. It is rather astonishing that they have not availed themselves of it more freely. But the self-imposed restraint of the Society of Architects is less difficult to understand. It accords not only with the generous and conciliatory spirit that, as we have remarked, has become a Society tradition, but with the dictates of common sense. To quibble over such a point at such a juncture would have been bad policy, if not bad patriotism; but the Society has happily avoided this mistake, and must be congratulated on this fact, and, further, on its avoidance of any temptation to make a virtue of necessity.

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In the House of Commons, Sir Alfred Mond, replying to a question by Mr. P. A. Harris, said: "The new buildings in St. James's Park are being constructed of brick because of the impossibility of obtaining the requisite amount of timber and other building materials. It is not intended that these buildings in the park shall be permanent, and they will be removed as soon after the declaration of peace as the interests of the State will allow." That the question was raised is much less surprising than that certain points in the answer should be obscure to perplexity. Surely it is quite unnecessary to build temporary buildings of brickwork. Bricks, it is true, are not scarce, but the labour expended on the slow process of putting them "all together, one after the other," is largely wasted, and we have it on Government authority that labour should be economised to the utmost. Besides, brickwork makes a comparatively extravagant demand on the costliest of labour—skilled labour. Moreover,

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that would be a queer sort of brickwork building which dispensed with the use of timber. Sir Alfred's reply on this head seems to suggest the inferences that in brick-building wood is not required, and that the only alternative is to put up all-wood structures. This is the impression that the general public will derive from the reply, although Sir Alfred might be justified in denying that he intended it to be understood in this sense; for he must surely be well aware that there are several materials that could be advantageously substituted for bricks without making any greater draught on the timber supply, which must have fallen very low indeed if it cannot afford a few posts to which asbestos-cement or corrugated iron sheets, or reinforced-concrete blocks or slabs could be fixed. Some of these reinforcement systems make no demand whatever on the timber-yard; and equally independent of it are the several "all-steel" systems of construction, by which a comfortable building of useful dimensions can be put up in three or four hours, and taken down even more rapidly and without detriment to the materials. All these newer systems have been used extensively and satisfactorily throughout the country by various Government departments, and, notwithstanding Sir Alfred Mond's explanation, we are still at a loss to understand why brickwork has been adopted for the new temporary structures in St. James's Park.

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Mr. Felix Moscheles, who died at the age of eighty-four last week, was an artist who was more remarkable for his influence than for his achievements. His exhibits at Antwerp, at the Paris Salon, in the Academy, and in the Grosvenor and New Galleries were, generally speaking, of a character that his friend Du Maurier might have described, through Maudle, or Postlethwaite, or through one of the sage-green-gowned ladies of the "æsthete" series, as "quite too deliciously all but." He gave himself too freely to his friends, and to artistic and social propagandism. In "Who's Who" he sets down "propaganding and lecturing" as his recreations and the most earnest work of his life seems to have been sociability—so much may be inferred from the delightful book he published in 1902—"In Bohemia with Du Maurier: Fragments of an Autobiography." They are very precious fragments from the table of a man singularly rich in his friendships, and uncommonly cordial in them. Withal he was an excellent critic of art and music; and exponents of both arts owe much to his kindly word in season. With him, peace was a passion, and he had been extraordinarily active—for many years before the present war broke out—in the cause of international arbitration. This was his real life-work, and it is painful to think that he should have died in the midst of Armageddon.

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It is remarkable how quickly the girls who took to brickmaking when men became scarce have mastered the nuances of the industry. Two hundred have struck because one was discharged. It used to be said that women were lacking in the power to combine on trade-union principles, but here is evidence to the contrary. They are acting up to the most venerated traditions of trade unionism, and the ex-brickmakers at the front, when they hear the joyful news, will hail the ladies as bricks of the selfsame clay, cast in the same mould, holding together with the same Old English bond. Whether or not these girls are really unionists we are unaware, and we are left without the means of assessing the merits of the case: but we infer that when it comes to a question of supersensitiveness, girls will easily beat men, whose hyperæsthesia, however, had become a thing so subtle and delicate that one had thought that it could neither be understood nor exceeded. This appears to be another of the many illusions that the war is dissipating. Only the ladies could reach the limit of intense devotion to a person rather than to a cause. We do not say that these lady brickmakers have broken the men's record in this kind; but their strike seems to bear the promise of future championship in the "down-tools" competition.

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It would be almost a breach of courtesy, or "another injustice to Ireland," if we omitted to offer our very sincere congratulations to the Architectural Association of Ireland on its "coming of age." This happy event was celebrated at a smoking concert held at the Grosvenor Hotel, Dublin, the week before Christmas, when Mr. Kaye Parry, President of the Institute of Architects of Ireland, who was one of the original members of the Association, toasted its twenty-first anniversary in a felicitous speech. He laid stress on the benefits of professional organisation—its value as a means of instruction, goodwill, and good-fellowship, could not, he said, be over-estimated; and, besides, association tends to elevate the standard of the profession. Fortunately these are truisms, though probably they were less obvious one-and-twenty years ago. One may therefore hazard the definition that truism is truth that has come of age. It was cheering to learn from the president of the Association—though the assurance was unnecessary—that the Irish Institute had from the beginning encouraged the junior body—the Association—in every possible way, which is a parallel experience to that between the British Institute and the A.A. In each case the one organisation is the complement of the other, and in Ireland as in England the interest of the senior in the junior organisation is benevolent to fatherliness: which, as Samuel Pepys would have said, is "mightv pretty to see."

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From a rather desultory correspondence on "The Educational Value of Museums," which has been running for some weeks in "The Times Literary Supplement," it is evident that the spirit of reform is reaching even the remotest penetralia. If the stuffed birds, the great auk's egg, the butterfly collection, and the beaded moccasins are not safe from it, what shall escape it? It is a fact, we fear, that the average local museum is cluttered up with more or less useless rubbish dumped upon it by heirs and executors who are heartily glad to get rid of an embarrassing legacy. Hitherto there seems to have been a fixed idea that the "educational value" of the local museum is adequately demonstrated by stuffing it with heterogeneous curios, at which nobody ever takes a second glance; but a new conception of the functions of a museum would transform it from a mouldering lumber-house to a temporary depository of things that matter—objects representing the latest industrial developments, the newest discoveries in science, and so forth. Until it renders this real service to the community, the museum can have but a scanty claim to educational value, or to living interest of any kind. Antiquities and curiosities are very well in their way, but their effectiveness as a means of education is insignificant in relation to the national need for utilitarian information; and at best they excite but a languid and sterile interest. They should be relegated to the attic or the basement, if not to the scrap-heap, and the principal rooms should be devoted to science, commerce, industry and the applied arts. And the museum should no longer be regarded as a mere storehouse, but as an exhibition in which the only objects permanently installed are those possessing basic and fundamental interest, such, for instance, as models illustrating the principles of mechanics, while the rest should be subject to frequent change by an alert committee of experts, who should be kept up to the mark by a central advisory authority.

HERE AND THERE.

IN chatting, a week or two back, on City churches, I had a haunting sense that they were somehow a different species from country churches. It would be strange if they were not. Gray's "Elegy written in a Country Churchyard" could not have been inspired by a town churchyard; and I rather fancy that the City church lends itself more easily to pomposity than to poetry. But the great difference between the twain is that the City church is simply a bit of street architecture, while the country church is—or ought to be—a part of the landscape, taking and giving beauty, and therefore in some sense akin to "the sweet sound that breathes upon a bank of violets, stealing and giving odour." One can as little imagine Bow Church set on a wooded hill-top as Stoke Poges hemmed in on crowded Cheapside. Wren, it is said, designed his spires to harmonise upon a general view—best to be got, as Wordsworth knew, from one of the bridges, although one could not, without the poetic vision, reconstruct, in 1918, the city as he saw it from Westminster Bridge in 1802—

"This City now doth, like a garment, wear
The beauty of the morning; silent, bare,
Ships, towers, domes, theatres, and temples lie
Open unto the fields, and to the sky."

To-day we are a dome to the good—that of the Wesleyan Central Hall—but the fields are to seek; even St. James's Park, were it otherwise qualified, is heavily discounted by its war-time hutments.

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From what point of observation, I wonder, did Wren survey his spires when he was contemplating harmonious additions? Sometimes the object was not harmony, but counterpoint, as when he cunningly devised for St. Martin's, Ludgate, a steeple so attenuated that it does not obstruct the distant view of the dome of St. Paul's, but emphasises its mass. One can imagine that his first thought was to have no steeple at all, but perhaps only a dwarf turret, to St. Martin's, and that the final decision was the fruit of further deliberation. St. Martin's steeple *per se* may be a poor anæmic thing, but we despise it less on seeing how admirably it fulfils its function as a foil. In compensation, the front of St. Martin's has the peculiar sweetness that only Wren could impart. Here, as elsewhere, it is his exquisite sense of proportion, his unrivalled dexterity in composition, his adroit introduction of simple decorative features, that combine to invest with charm a front that in ordinary hands would have been abandoned to flat insipidity. London should be grateful for the Wren touch in doorway, window, wall-surface—for his swags, his wreaths, and his pine-apples—his by adoption and disposition, even while the hand of Grinling Gibbons or another may have wrought these graces.

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If Wren really town-planned, or harmonised, his steeples—and I, for one, am glad to believe that he did—the removal of so many of them must have interrupted the concert. That it has done so quite disastrously your thoroughgoing Wren enthusiast is probably prepared to prove to demonstration. He would take you up the Monument (which was perhaps Wren's own observatory), point out the gaps, and describe minutely the steeples that used to fill them, and you would come down sadder and wiser. In other days you might have come down very suddenly. I have a suspicion that it was these Wren enthusiasts who gave occasion for the wiring-over of the gallery of the Monument. They took you up there and broached their steeple-concert theory. If you opposed it, they toppled you over, and accounted for you by reporting "another suicide from the Monument." By 1842 five suicides from the Monument had been recorded, and the City authorities put a stop to this short way with dissent, or of descent, by caging-in the gallery. Since then Waterloo Bridge has held, for London, undisputed sway in that bad eminence. It is a sorry abuse of the noblest bridge in the world.

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That cage (as the younger Wren said of the urn on top of the Monument) "is not artfully performed." It is an ugly remedy for an unlovely impulse. These suicides from great heights are not always premeditated. Persons have confessed to crawling off Clifton suspension bridge (whose evil record is even worse than that of Waterloo) on hands and knees as the alternative to throwing themselves into the water; and I know one or two architects who are disqualified by "nerves" from ascending beyond the first stage of scaffolding. Others there are who delight in dizzy heights, and who would cheerfully emulate the derring-do of, for instance, the late Professor W. K. Clifford, who in his college days climbed up a steeple and stood upright on one foot on the vane—a vainglorious performance for a budding professor.

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That theory of the harmony of town steeples, far-fetched though it may seem, is plausible enough when one man designs them all; but what of the others, put up by various men at periods centuries asunder? Harmony is still possible, even probable. Standing on an eminence a little way out of Oxford, you shall see more towers and spires and domes than any other city in the world can show. Do they harmonise? Mainly in colour, I think, rather than in form, though in the general view they lose individuality, and one cannot be in every instance confident as to particular identity. You are interested in them in the lump. As a forest of stonework they are impressive, but there is a considerable loss of separate interest. Oxford, of course, is an extreme case; and it does not illustrate, as I claim that London does, a notion of mine that Renaissance churches seem more at home in a city, and Gothic churches more appropriate to the country-side. Oxford occurred to me merely as a convenient and familiar example of the opposite effect to that produced in contemplation of an isolated country church.

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It is, I suppose, a matter of habit, association, sentiment, which makes one feel that while in London Gothic churches look uncomfortable and out of keeping with their surroundings, one would not like to see a Wren church set on a country hill. Picture and story have attuned one's mind to the path winding across the meadow, and leading through the red-tiled lych-gate to where "the rude forefathers of the hamlet sleep," and where the venerable church stands sentinel. Sir Henry Newbolt's nameless hero (in "He fell among thieves"), when under sentence of death in the Indian hills, saw in reverie his home, school, college, and

"the gray little church across the park,
The mounds that hide the loved and honoured dead,
The Norman arch, the chancel softly dark,
The brasses, black and red."

This is the summary of the England whose sons are dying for her; and "the gray little church" is typical, vital, integral. It is racy of the soil, an indigenous growth peculiar to this island.

DIOGENES.

DEVELOPMENT OF THE COTTAGE.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

IN my last lecture I brought to a conclusion a general review of the development of the English village. I now propose to direct your attention to the development of the cottage as a unit of the village or town.

English Aversion to Change.

There is an old saying that the Englishman's home is his castle, and certainly no people have inherited so strong an attachment to their homes as have the inhabitants of Great Britain. No people have been so little disturbed by war or conflagration, and none are so averse to domestic change.

When we come to consider the drastic nature of the changes that have taken place in commercial organisation and in industrial processes during last century we realise that contemporary changes in methods of living and in our domestic arrangements have been comparatively unimportant.

In a history of the development of the home we look back quite naturally to Saxon times. There are no houses of this period now standing, but in a few examples of mud cottages with stout oak roofs of one storey which still remain and which date from the fourteenth century, we see practically the cottage of the cottier of Saxon times. Different from this would have been the farmhouse of the villaine. In his case cattle and family probably lived under one roof.

The Unchanging Cottage.

We are told by Mr. Addy in his "Evolution of the English House" that the old Yorkshire "coit" or combined house and shippon had been a common arrangement since the time of the Romans, though not universal. An interesting historical note on the subject appears in the writings of William Harrison, and dates from the year 1577. He says: "The mansion houses of our country towns and villages (which in open ground stand altogether by streets, and joining one to another, but in woodland soils dispersed here and there, each upon the several grounds of their owners) are builded in such sort generally, as that they have neither dairy, stable nor brew-house annexed unto them under the same roof (as in many places beyond the sea and some of the north parts of our country), but all separate from the first, and one of them from another, and yet for all this, they are not so far distant in sunder, but that the goodman lying in his bed may lightly hear what is done in each of them with ease, and call quickly upon his family if any danger should attack him." This William Harrison takes an undoubted pride in telling us of the separation between the farmhouse and its adjuncts, but in doing so it is very likely that he is stating what is an exception to a rule. But the development of the farmhouse is somewhat outside our immediate interest. What we are more concerned with is the cottage, and the origin of those features in its plan and those details in its appointment which, though changed with every fresh impulse in building, have persisted right up to the present time. The country cottage of the labourer and crofter, in general appearance, is practically the same to-day as it was a thousand years ago. It has always had its one or two rooms, with a single-span roof, two gables, two windows, and a central door; and thus in a review of the history of the cottage, apart from the farm house and the town house, we realise that up to the middle of last century the changes that have been brought about are really the result of changes in regard to two features, the fireplace and the window. The history of the fireplace and of the window has been the history of the cottage. Of the accommodation, the only room that can really be said to have been ever present, and in relation to which all other rooms and apartments have been absent or present, is the living room or house place. Butteries and stores, chambers and bedrooms, parlours and kitchens have either been part of the integral structure or have been added as "outshots," but in no case have they been regarded as essential to the minimum accommodation.

The Earliest Cottages

were open to the roof, which was carried by stout oak principals set 16 ft. apart, or thereabouts, the intervening space being called a "bay." So that a cottage might in size be one bay or two bays, and so on. Rows of cottages were sold or let at so much the bay. The walls were at first constructed of loose stones or mud, often three or four feet thick, the centre of the mud wall being packed with bran or rubbish. But more often the space between the principals was filled with timber, clay, and wattle. Chimneys, which were at first entirely absent, came to be built as large funnels, projecting down from the roof and carried on stout timbers. Leland, writing in 1538, says: "I much noted in the hall of Bolton how chimneys were conveyed by tunnels made on the sides of the walls betwixt the lights in the hall." This refers to a flue up the wall, and is not the old canopied flue of the cottage. Carew, in his Survey of Cornwall, published in 1602, says that "the ancient manner of Cornish building was to set hearths in the midst of the room for chimneys, which vented the smoke at a louvre in the top."

Hearth and Home.

Another writer of the early seventeenth century says: "Anciently, before the Reformation, ordinary men's houses, as copyholders and the like, had no chimneys, but flues like louvre holes. Some of them were in being when I was a boy"; and William Harrington, writing in 1577, tells us of old men who lived in his own village in Essex, relating that there were not above two or three chimneys "in most uplandish towns," and that each one made his fire against a reredos in the hall, where he dined and dressed his meat.

This reference to a reredos is interesting, and would seem to have been a canopy of wood and plaster which stood over the open fire hearth and received the smoke that escaped through a louvred funnel, which later became a chimney in the roof, and we read of trees being sawn to support chimneys.

So that it would seem that whereas at first the fire was lighted on a hearthstone near the centre of the house place, the smoke escaping at a louvre in the roof, a later method, necessitated by the blackening of everything with smoke, consisted in the construction of a sort of funnel built over the fire, which funnel was later found to be much more easily constructed against the wall, and thus we get the great open fire beloved of all Englishmen, and resuscitated in the middle-class cottage of to-day.

We are very fond of old jewellery, we love drinking out of ancient mugs, and we love the old ingle nook and the wood fire, but we must remember that these little indulgences are not vital, but only the righteous affectation of those who can afford and care to indulge in the romantic imagery of a bygone day.

Probably the most real and economic method of heating applied to a cottage to-day would be by an automatic gas boiler and radiator with combined oven and stove plate, a most unholy procedure when viewed in the romantic twilight of the past.

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* Summary of the fourth of a series of six lectures delivered at University College, London.

The Cottage Chimney.

But to proceed with the history of the cottage chimney. About the eighteenth century, when real flues and close fires came to be fashionable, the huge canopied ingle, with its funnel-shaped flue, came to be regarded as too crude a method of collecting the smoke, and so within the ingle we get built-in an open grate with a narrow connecting flue. This, of course, was a method of applying a modern invention to an old system. In the case of new buildings the ingle came to be omitted altogether, and towards the end of the eighteenth century the Surrey back plate gave place to the hob grate, and the ingle disappeared. But the transition was very gradual; at first, when the fire was taken direct into the flue, the ingle became a low-ceiled recess with fixed seats at either side, but later it disappeared, the old shelf over the entrance still remaining high up on the wall over the small opening for the fire.

So far our reference has been to cottages in the country where space abounded, and it should be noted that the universal use of a single-span roof was really the controlling feature of the plan. It was not until the nineteenth century, when cottages were built in rows, that that objectionable feature, the two-storey back addition, crept in.

Standardisation Foreshadowed.

In the eighteenth century more organised methods of building led to the introduction of a certain amount of standardisation; cottages were built in terraces, and cottage features, doors, windows, chimneypieces, etc., came to be made in large quantities to a model design. This standardisation of the cottage led to the single-fronted cottage with a door. The usual type of plan for the smallest cottage was a living room, entered from the street, a stair either opposite the door or in the back wall, one or two rooms over, and a lean-to scullery. This lean-to scullery is a very common feature in early nineteenth-century work; the back addition, which gives that broken and jagged effect which is so well known, was not introduced until quite the middle of last century, and belongs, properly speaking, to the urban cottage in town. But before proceeding to consider these purely urban cottages we might do well to refer to the great change that came over the cottage in the eighteenth century with the introduction of Classic architecture, and when it had had time to penetrate into the most secluded recesses of the country.

Classic Influence.

Classic architecture applied to cottage design meant perfectly plain fronts, carefully proportioned sash windows, neatly panelled doors, and a concentration of richness in the door architrave and head.

In a review of the different types of cottage designs to be met with in this country, it would be difficult to decide whether the greater change is to be noted in period or place.

Strictly speaking, a cottage built of the same material and at the same period differs very little throughout England. The charm of the English village really lies in the picturesque association of cottages of varying antiquity, and as they reveal the gradual development of the Classic style. We have shown how in the eighteenth century villages were rebuilt to accommodate tradesmen and others from the towns. Indeed, many of our larger villages became small towns. Villages like Farnham and Alton are examples. This Classic inundation meant the introduction of the sash window and the enriched cornice.

Until the windows of the eighteenth century the sash frames were fixed almost flush with the outside wall. But the statute of Queen Anne, June, 1709, enacted that no door frame or window frame in the City of London should be set nearer to the outside face of the wall than four inches; and it continued in London until quite recently. The setting back of the window frame in cottage work meant a loss of that breadth and richness which is so essential in cottage design.

When sash windows were first introduced everyone who could afford to do so removed the old casement and substituted the newer treatment, which meant a great increase in the amount of light, and thus we see everywhere throughout England numerous cottages and small houses that have on the upper storeys casements and on the lower storey the sash.

Except that in the more secluded places Classic details are more varied and a little cruder than in London, generally throughout the country they are practically the same. In fact, as has already been mentioned, they were standardised. I have noted a rather rich door with its brackets, architrave, and cornice evidently turned out of the same workshop in places so far apart as Twickenham, Cheshunt, and Thirsk in Yorkshire. And whilst no doubt many of our Classic features were during this period taken from books like "The Builders' Jewel" of Batty Langley, at the same time chimneypieces and door architraves were no doubt bought and transported from such shops as were set up by the Adam brothers in London and in other places at considerable distances from where building was taking place.

Individual Character.

But, apart from the question of style, the cottages of England have an individual character due to the use of local materials used in the walling and general structure, and there are also interesting differences of treatment due to native traditions and foreign associations. For instance, the close association that existed between Holland and East Anglia in the seventeenth and eighteenth centuries accounts for the Dutch-like gables, the ornamental brick treatment, the superlative richness of the carvings, and the diaper pattern work in the plaster, everywhere found in this locality.

The Surrey cottage is distinguished by its wall tiling, its brick and timber construction, and its fine chimney stacks and chimney bases, and yet there is nothing in Kent and Surrey that might not also be seen in Buckinghamshire or Sussex. Perhaps there is more half-timbered construction in these counties than in East Anglia, where whole villages with plastered fronts may frequently be seen.

In the Cotswolds we get those beautiful stone cottages that have an individuality entirely due to the use of this material; and yet the stone cottage of the Cotswolds, so different from the brick cottages of Surrey, is at the same period almost identical with the stone cottage of Derbyshire, and only varies from the stone cottage in more remote parts of England, like North Lancashire and West Yorkshire and Devonshire, in that in these districts it is more solid and elemental in its mass and design.

The Cottage of To-day.

With this brief review of the cottage of the past we now turn to the cottage of to-day. There are two factors to be reckoned with in the design of the modern cottage which have inspired a difference both in the plan and in the general treatment of construction and design. Up till the middle of last century the cottage had no drains, often no sanitary arrangements, and no laid-on water supply. The smaller cottages consisted, on the ground floor, of a large room: the house part, sometimes a bedroom or chamber and a buttery or pantry; the larger cottages had a kitchen and a parlour, but no scullery.

(*To be concluded.*)

THE PLATES.

The Church of S. Demetrios at Salonika.

THE city of Salonica, almost completely destroyed by one of the greatest fires known to history, is to be rebuilt under the direction of a commission of well-known engineers and architects, with Mr. Mawson as their president. There will surely be great improvements with regard to hygiene, convenience, and amenity, with probably a finer general plan. The opportunity, at any rate, is unique; the position is unrivalled—at head of the great harbour, with its unlimited possibilities of expanding trade; the site not too much encumbered with important ruins, so that the new plan should be able to impose and adapt its lines within the frame of the old walls, with their magnificent citadel on the summit of the slope to give a crowning dignity to the whole.

On the other hand, with much that was mean and squalid has disappeared for ever an irreplaceable wealth of picturesque and characteristic detail, thousands of quaint wooden houses with latticed harems overhanging the narrow cobbled streets, queer irregular mosques with slender minarets and Saracenic domes and columns, beautiful green-blue tiled interiors with wonderful faded carpets, gardens, and synagogues, dim-vaulted baths, and bright-coloured markets; in short, a hundred curious corners that no artist now will ever paint. But the most irreparable loss of all lies, without question, in the almost complete destruction of the church of St. Demetrios (see Supplementary Plates).

This glorious basilica was built, probably out of the city Thermae, in the earlier half of the fifth century, during the reign of Theodosius the Second. It was obviously constructed mainly of materials robbed from Pagan buildings, and, as it is easy for anyone to see to-day, originally consisted of three spacious naves, divided by two lines of monolithic marble columns. Over the lateral naves were wide galleries for women, each with a row of smaller columns supporting the clerestory and the roof. The basilica from earliest times included the tomb and shrine of St. Demetrios, imprisoned and martyred upon the spot under Maximian. In his little chapel near the north end of the narthex gushed forth a sacred spring, with renowned miraculous properties, for centuries a place of pilgrimage for the faithful of the Eastern Church.

In the year 904 Leon of Tripoli, a Saracen pirate, assaulted Thessalonica with a fleet of fifty ships, each manned by two hundred negroes, who massacred the population and set fire to the city, carrying off to slavery twenty-two thousand girls and children. The Church of St. Demetrios was in great part consumed.

The Emperor Leo, surnamed the Philosopher, restored the basilica when he rebuilt the city, as his portrait and inscription over a second smaller row of columns testified. The inscription ran:

> *ἐπὶ χρόνων Λεόντος ἡβῶντα βλέπεις*
> *καυθέντα τὸ πρὶν Ναοῦ Δημητρίου.*

It was doubtless he who introduced these second rows of columns, placed down the centre of the lateral naves to support smaller wooden galleries—architecturally a mistake, we think, and of rude construction, but serving to give surface for most interesting mosaics.

Photographs can give no idea of the beauty of these tenth-century fragments. Stiff and crowded in design, with none of the strong breadth and freedom of the sixth-century figures in the great dome of St. Sophia in Salonika (fortunately saved from the fire by the open spaces round it), nor yet possessing the sober solemnity of twelfth-century Norman work in Monreale, these mosaics had nevertheless great charm of detail and a gem-like richness and diversity of colour seldom equalled. Seven colours at least were used, chiefly bright and in small patches, many of the robes being covered with delicate designs in gold and silver.

A few years after the Emperor Leo's restoration of it the church was again partially consumed by fire, but once more restored by the munificence of the rich citizens, with new signs of that curious indifference to the harmony of various styles or the original intention of such ornamental details as were now used indiscriminately, a custom often resulting in a picturesque felicity such as the buildings of more exacting periods do not possess.

Apart from its age and history and the beauty of its tenth-century mosaics, the richness of its marbles and, above all, the exquisite delicacy and variety of its capitals, combined to make this noble building one of the finest monuments of Christendom. The capitals in themselves were worthy of close study, ranging as they did from the regular late Greco-Roman "composite" to the elaborate "fretwork" of the well-known Byzantine type. In some the acanthus leaf is twisted and laid back against the column as though caught by a strong wind, in others birds and curious beasts are conventionalised and frozen into the stone. In some cases the second upper capital is as elaborately carven as the first. In all there is beauty born of high devotion and the initiative of craftsmen who made no two alike.

Roofless, its marble vesture stripped and broken,

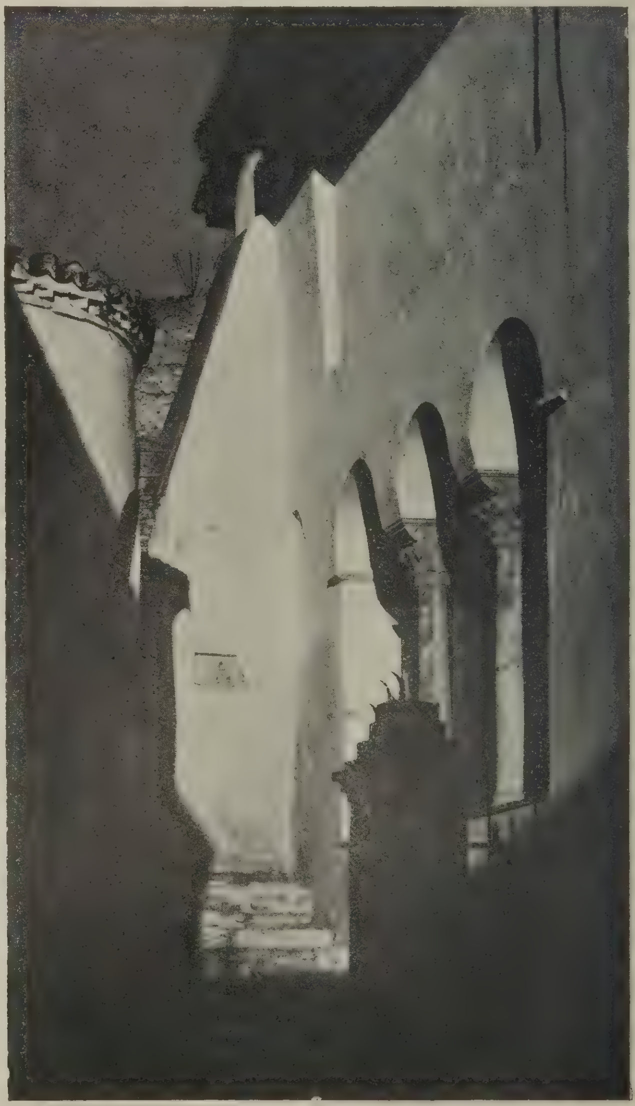


Photo by the Sezione Fotografica of the Italian Army.

CHURCH OF ST. DEMETRIOS, SALONIKA:
DETAIL OF EXTERIOR.

its galleries and upper and outer lines of columns with all that they sustained heaped on the pavement, the few still upright pillars of the central nave bitten and scarred by fire with capitals so defaced that in some cases their design is scarcely traceable, the basilica of St. Demetrios is now a piteous ruin, beyond the skill of the constructors of new Salonika to restore to its old grace.

H. E. GOAD (Capt.).

Under a Temple Portico.

This is supposed to represent the view from the portico of the Temple of Artemis, in a Greek maritime city, about 450 B.C. As it is a festival day to Artemis, the front of the temple has been hung with garlands. On the left is seen part of the façade of the Doric temple of Zeus, on a steep rock, with the staircase leading up to it. The pyramid with a couchant lion on it, in the middle distance on the right, was erected in memory of a naval victory at the entrance of the bay, which gave the little State the foundation of its prosperity. Below is seen part of the small archaic wooden temple, belonging to an earlier period. The drawing was hung in the Architectural Room at last year's Royal Academy, for which it was not intended, having been sent in for the "Black and White" Room.

H. H. STATHAM.

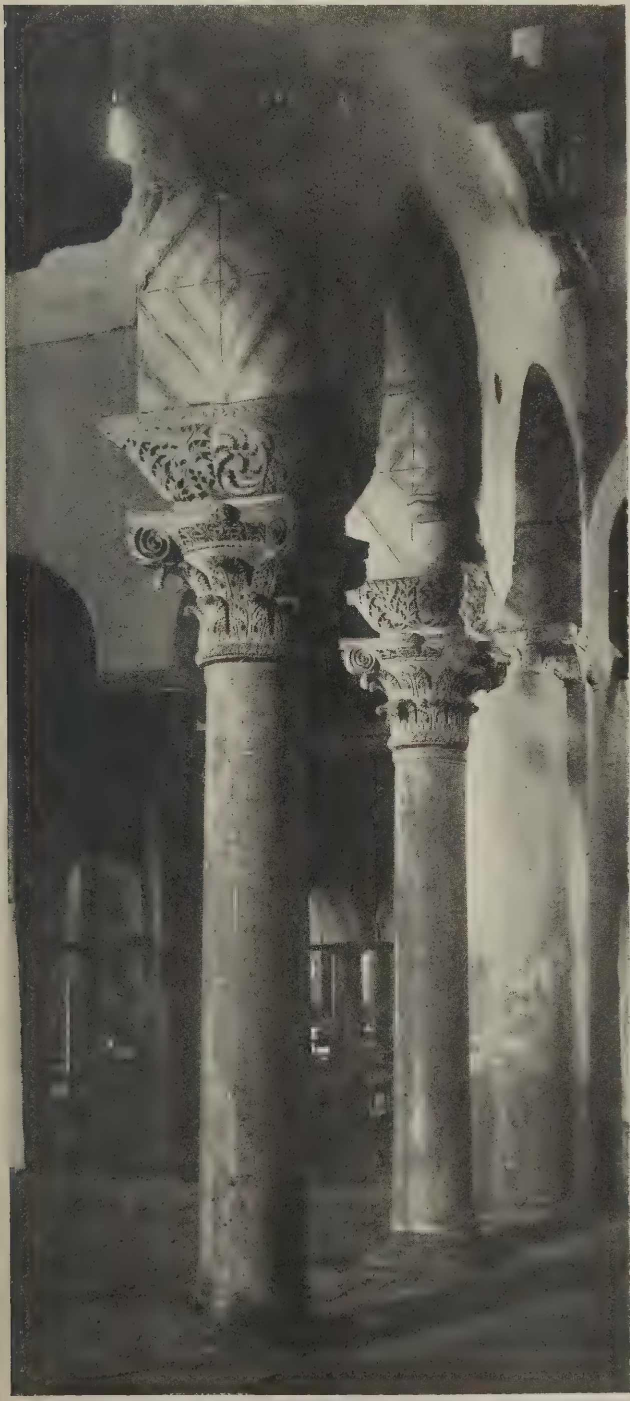


Photo by the Sezione Fotografica of the Italian Army.

CHURCH OF ST. DEMETRIOS, SALONIKA: DETAIL OF NAVE ARCADE.

CORRESPONDENCE.

R.I.B.A. National Housing Competition.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—The Council of the Society of Architects, having considered the conditions of this competition, are of the opinion that Clause 5 is wrong in principle and that it contravenes Regulation D, which is one of the essential conditions of the competition regulations adopted by the Society.

Having regard, however, to the supplementary statements issued by the Institute and to the exceptional circumstances, and on the understanding that it is not intended that these conditions, and particularly Clause 5 thereof, should form a precedent for future architectural competitions in normal times, the Council will not on this occasion object to any members of the Society taking part in the competition if they wish to do so.

C. MCARTHUR BUTLER, Secretary.

The Society of Architects, 28, Bedford Square,
London, W.C.
December 18, 1917.

L.G.B. Cottage Competitions.

SIRS,—The R.I.B.A. would appear to have given somewhat scanty consideration to the conditions governing the above, and they have hardly made amends in the answers to competitors recently circulated. A few points which the committee appear to have ignored—despite the fact that queries relating to them were submitted—are as follow:—

(1) Aspect. An excellent design for a sunny front might be disastrous on a site facing north. To *ordinary* architects this rudimentary fact would suggest the necessity for two designs in each case, or at least some definite instruction on the point.

(2) The conditions require an end house (frontage not specified) and two terrace houses, one of 18 ft. and the other of "wide" frontage, to be shown as part of a block, and this is simply reiterated in the supplementary particulars, although more than one definite request for a clearer statement was made. Of course, three houses of different frontages and depths *can* be welded into a presentable design if required, but such a course would appear to be futile in the case of a large housing scheme in which "strict economy" is "an important consideration." The R.I.B.A. will not state whether they want—as implied—designs for this curious assortment of necessarily dissimilar houses, or three fragmentary units merely shown in one block for convenience. If they want this latter—regardless of the effect of one unit when multiplied into a block of four or six—is it too late for them to say so in definite terms? Surely competitors are entitled to a businesslike statement of requirements. Vague instructions of this kind are disheartening, to say the least.

(3) As they stand, the instructions only permit one type of house in each set of three to be semi-detached—a very important point when dealing with narrow frontages.

(4) The veto on alternatives seems unfortunate when there are so many points of detail involved.

December 20, 1917. R. S. BOWERS.

THE EDUCATION OF THE ARCHITECT.

The following letter is reproduced from the current R.I.B.A. "Journal." Brief comment upon it will be found in our editorial columns:

School of Architecture
University of Liverpool,
November 7, 1917.

To the Editor, JOURNAL R.I.B.A.,—

Dear Sir,—In the October issue of the "Journal," under the title "The Education of the Architect," you publish comments by Mr. Walter Millard on the policy of the Board of Architectural Education in regard to the Schools of Architecture. Mr. Millard's notes conclude with an invitation to those engaged in the teaching of architecture to put forward their views on the subject.

I venture therefore to draw the attention of the Board of Architectural Education to certain aspects of its constitution and of the constitution and working of its Testimonies of Study Committee. In so doing I do not intend to raise the whole question of the policy of centralisation adopted by the Royal Institute, within the limits of its concern with educational matters. My immediate purpose rather is to focus attention upon defective points in that policy and to suggest remedies for the consideration of the Board.

1. The basis upon which the Board of Architectural Education is constituted is not designed to ensure under all conditions an adequate or effective representation of those whose profession is the teaching of architecture. Its composition is settled by the votes of the Council, and the Council itself is elected by professional suffrage on general and not on purely educational issues. All the members of the Board ultimately so chosen may be presumed to be interested in architectural education. But the absolute and relative number, by vocation wholly engaged therein, is determined through a system of election conceived without direct reference to actual requirements. The scholastic members of the Board, whether elected or co-opted, occupy their position in virtue of an indefinite instead of a definite principle of representation.

2. The Testimonies of Study Committee exercises powers of the first importance in the examinational administrative of the Royal Institute. By its decisions it controls the admission of candidates to the Final Examination. Yet as a sub-committee of the Board it proceeds from a body whose constitution is open to the criticism already made. This committee —I have been unable to discover a record of its personnel—is called upon to decide an expert question affecting students in all schools of architecture throughout the country. It does so unassisted by the guidance of representatives of the school staffs generally. Its conclusions are formed from external evidence, the value of which it can, in many cases, have no accurate means of knowing.

3. In whatever manner the decisions of the committee may be reached, the method by which they are announced is of no assistance to candidates or to those responsible for their instruction. No explanations are given when a design is rejected; the student is left without the help of a reasoned critique of his work; he does not know whether his design has been thrown out on the ground of some infringement of the conditions or because of defects of composition or character, detail or style, construction or technique. Nor is his instructor in any better position. In such cases both are equally ignorant of the motives and requirements of an unrepresentative authority.

(I may illustrate this latter point by reference to the experience of the Liverpool School, of which I am at present in charge. For the past three or four years, and recently to an increasing extent, designs which seemed weak, not only to the staff, but to the students themselves, have, when submitted as testimonies of study, been passed by the committee; whilst work in our opinion of higher quality—and sometimes adhering more strictly to the prescribed conditions—has been consistently rejected. These results inevitably produce a discouraging and cynical effect upon the students and are inexplicable to the staff.)

4. The conditions published for the testimonies of study frequently suffer from imperfect definition. When it is desired to delimit a problem in specific terms, the clear statement of the terms should, I take it, be achieved. The second alternative in Subject XXXIV. provides an example of what too often obtains: "A Linendraper's Shop and Showrooms over four Storeys above pavement. . . ." It will be observed that the phrase "over four storeys" can be read in several senses. It may mean that the accommodation is to exceed four storeys in height, or that it is to extend throughout four storeys, or that it is to be distributed on the fourth storey level. A survey of previous examples will show that this instance is not unique.

I would suggest that the above defects may be remedied by the adoption of the following proposals:

(a) The Board of Architectural Education to include a representative of the staff of every University and other recognised school of architecture.

(b) These representatives

(i.) to constitute at least half the Board;

(ii.) to have full voting powers and not simply be attached in an impotent, advisory capacity.

(c) The school representatives on the Board, in view of their qualifications:

(i.) to be ex-officio members of the Testimonies of Study Committee;

(ii.) to form three-quarters of the total membership of the committee—in conformity with the tendency obtaining in all Universities to establish a ratio of three to one in the proportion of internal to external examiners;

(iii.) to have full voting powers;

(iv.) to be responsible, with the non-scholastic members, for the selection of subjects and for their statement in terms;

(v.) to be permitted to report to their respective schools the reasons for the decisions of the committee in regard to the designs submitted.

(d) The personnel of the Testimonies of Study Committee to be published in the same manner as that of the Board of Architectural Education.

(e) A reasoned critique to be furnished to the author of every rejected design who is not working at a school.

In putting forward the above suggestions I would plead that they are neither impracticable nor extravagant. The principles underlying them are accepted as axiomatic by educationists and are given full effect in the modern Universities. Without the proper representation of instructors having a direct knowledge of the candidates' work and abilities, an informed examination is impossible. By granting to the teaching profession a legitimate share of control in its own sphere, this defect is remedied. Educational efficiency is increased, whilst under the conditions proposed there are safeguards against the establishment of a purely theoretic or doctrinaire régime.

Should it be objected that the suggested reforms would place at a disadvantage candidates unable to attend a school of architecture, it may be answered that the provision of scholarships and grants affords the right method of meeting such cases. To perpetuate an obsolete system in the interests of a type of student that should be directed to the schools is illogical. Moreover, the proposal to furnish self-educated candidates with a criticism of their unsuccessful work would at least be some mitigation of their present position. As things are, in the event of failure they remain entirely without guidance.

I trust that it is not necessary for me to state that these remarks have not been inspired by any personal motive. They have been prompted solely by the conviction that the cause of architectural education will be effectively advanced only when its representatives receive consistent recognition, when settled and equitable conditions of collaboration are assured to them, and when they are granted powers commensurate with their functions and with their responsibilities.—Yours, etc.,

LIONEL B. BUDDEN [A.].

P.S.—It is perhaps advisable to add that my constructive proposals are not intended to secure the permanence of the present system and that the form of certain of them has been influenced by motives of temporary expediency.

The criticisms directed against the practice of centralised external examination, in the case of testimonies of study, can, of course, be applied to the practice of the Institute in regard to every other subject in which it assumes the onus of conducting tests and granting qualifications.

THE COMMITTEE ON WAR DAMAGE.

This committee, whose offices are at 7, Pall Mall, S.W.1, and 115a, Chancery Lane, W.C.2, state, in a circular letter, that a substantial concession has been made by the War Cabinet in their new scheme under which compensation for war damage from air raids and bombardment will be granted as from September last in regard to property up to £500; but that this does not meet their demand or the requirements of the case, and certainly does not carry out the principle of national responsibility accepted by the Prime Minister when he received the committee's deputation on July 13 last. There is no principle (the circular continues) in a scheme which fixes on some arbitrary sum and leaves out of question all damage above that amount. Neither is there any principle in giving compensation to those who suffer after July last and none to those who were raided or bombed before September, while to withhold compensation in cases of personal injury cannot be defended on any hypothesis. The premiums the Government have received represent money demanded under a misapprehension on their part of the extent of the nation's responsibility, and now that responsibility has been recognised all justification for retaining the money vanishes.

It is proposed to hold a meeting of the General Committee in January next, or early in February, when the Executive Committee will submit a report from the date of their election, including a financial statement and other particulars.

WAR·BVILDINGS·SECTION

DERBYSHIRE COUNTY SANATORIUM, CHESTERFIELD.

THIS sanatorium was erected by the Derbyshire County Council in 1914-15. The partitions are constructed of 3-in. coke breeze slabs finished externally in cement and plastered inside.

The following extracts from the report of the Council's medical officer (Dr. Barwise) give a general idea of the arrangements of the hospital, which was designed and carried out under the supervision of Messrs. "W. H. Ward," architects, of Birmingham.

In the past sanatoria have been erected in surroundings and on sites which, although ideal, are widely different from those to which the working class patient must return. The result is that, though he may do very well in such an institution, on his return he is depressed and disheartened by the great change, and comes to regard as an impossible ideal any attempt to remodel his home life on sanatorium lines.

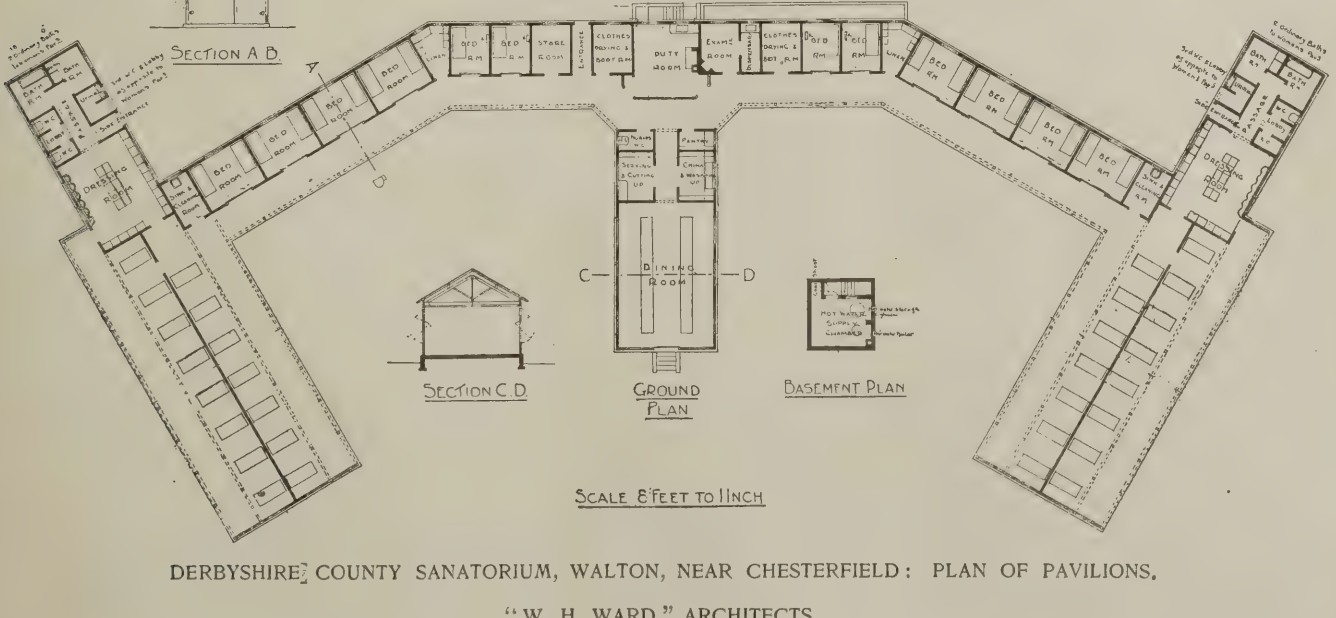
It is very probable that the breakdown of a number of cases soon after apparent recovery in such sanatoria is due to this cause, and for this reason the example of Birmingham has been followed and the sanatorium built in surroundings which, although hygienically satisfactory, are not widely different from those to which a patient must return.

On admission the patient is placed in a single-bedded ward, where the open window space can be regulated, and in winter may be heated. He is next removed to a double-bedded ward with no heating and less completely protected from winds. Finally he is allowed in the open-air pavilions. It is intended to provide open-air shelters similar to those available for home use, in which he may be taught to live before leaving.

To carry out this scheme Derbyshire County Council's Committee have erected an institution of 100 beds—fifty for males and fifty for females.

Ward Pavilions.

Each pavilion is shaped thus: "ᗰ", the central limb of which is the dining-room, from which a row of sheltered cubicles and store-rooms, etc., runs on either side south-east and north-west. At the far end of each row the open-air pavilions are built at right angles to them, and the bathrooms, lavatories, water-closets,



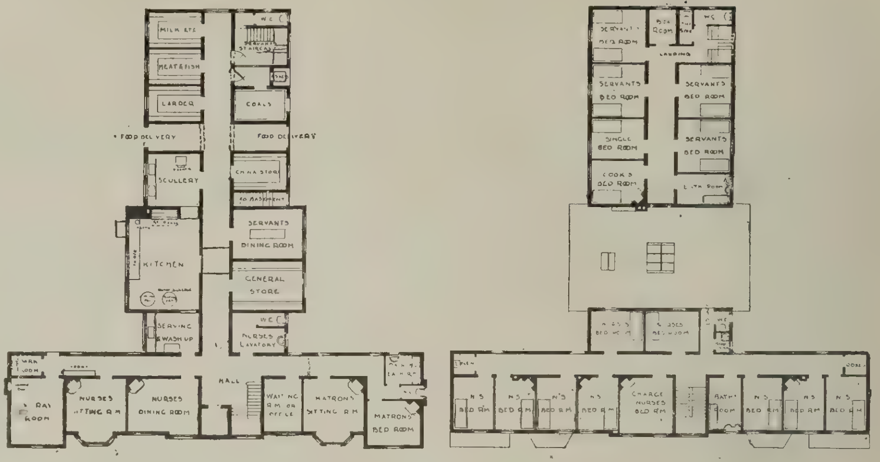
DERBYSHIRE COUNTY SANATORIUM, WALTON, NEAR CHESTERFIELD: PLAN OF PAVILIONS.

"W. H. WARD," ARCHITECTS.

and locker rooms project behind at each end. An airy, yet sheltered, double enclosure is thus obtained between the open-air pavilions facing south and south-west.

Twenty-five patients are accommodated on each side of the dining-room, and a consulting-room, an operating room, and a dispensary are placed as centrally as possible, together with a clothes-drying room and linen store.

The whole of the floor throughout is of concrete. The space under the dining tables in the dining-room is slightly heated by means of hot-water pipes in a closed channel under the concrete floor. The dining-room should always be open to the outer air, and to attempt to warm the air of an open pavilion is obviously absurd. Here it was thought that the patients could be kept warm by a little radiant heat from the floor over which they sit. The scheme has proved a great success. It is extremely economical, as every unit of heat is utilised.



GROUND FLOOR PLAN

FIRST FLOOR PLAN

DERBYSHIRE COUNTY SANATORIUM, WALTON, NEAR CHESTERFIELD: PLANS OF ADMINISTRATIVE BLOCK. "W. H. WARD," ARCHITECTS.

Doctors' Quarters

The resident doctor lives in a detached house, part of which also serves as a porter's lodge.

The Administrative Block

is a "T"-shaped building. The top of the "T" and the base of the stem have two storeys, while the junction of the stem with the top of the "T" is one storey; this is the kitchen. The front of the building, which forms the horizontal part of the "T," consists of a single row of rooms—the matron's and nurses' rooms—on the ground floor, with the nurses' bedrooms above them. The matron's quarters are at one extreme of this row, and the X-ray room is at the other; between them are the nurses' dining-room and sitting-room and the office. The nurses' bedrooms are ten in number. Every bedroom has through ventilation by means of a fanlight over each bedroom door leading to a passage which has windows on the opposite side.

The servants' bedrooms are arranged over the store rooms and pantries in the vertical part of the "T," and there is accommodation for a domestic staff of ten. These are separated from the bedrooms of the nursing staff by the single-storey kitchens and sculleries. The administrative block, with the exception of the nurses' and servants' bedrooms (which can be extended), is sufficient for a larger sanatorium.

The laundry is a detached building, well lighted and ventilated. It has a receiving-room, where the linen is checked over against the lists received from the various wards, and a wash-house containing two washing machines, in which the clothes are washed, boiled, and rinsed, and a centrifugal drying machine for extracting the water from the clothes: a soap boiler, wash-troughs with hot and cold water, and a starching trough complete the apparatus of this department.

The ironing and finishing room includes a drying closet containing six draw-out horses. When the horses are loaded with linen they are run into a chamber, where the clothes are exposed to the drying effects of a strong current of fresh hot air, which is driven through the closet by a powerful blower. The space over the drying closet is used for drying flannels in a moderate temperature, the hot air being drawn from the flues of the drying closet. Alongside the drying closet is an airing room.

A large ironing machine is provided for dealing with sheets, pillow-cases, and all kinds of articles of single fold, the work passing through this machine being dried and finished without going to the drying apparatus. There are skirt boards and tables fitted with electric irons for hand ironing.

The delivery-room is fitted with racking, divided into separate compartments, for classifying the work for its return to the various wards.

Steam is provided by a vertical boiler, and the machinery is driven by an electric motor. The whole of the installation, which was carried out by Messrs. Bradford, of Salford, is complete and well arranged for dealing efficiently and economically with the work.

In this building, but quite separate, there is a disinfector, made to Dr. Barwise's own specification. The steam supplied to the disinfector is delivered through a reducing valve at a pressure of 2 lb. After disinfection high-pressure steam is driven through a coil to dry the clothes. The water supply is surface water, chiefly moorland, derived from the Chesterfield Gas and Water Board. The sewage is connected up to the sewerage system of the Corporation of Chesterfield.

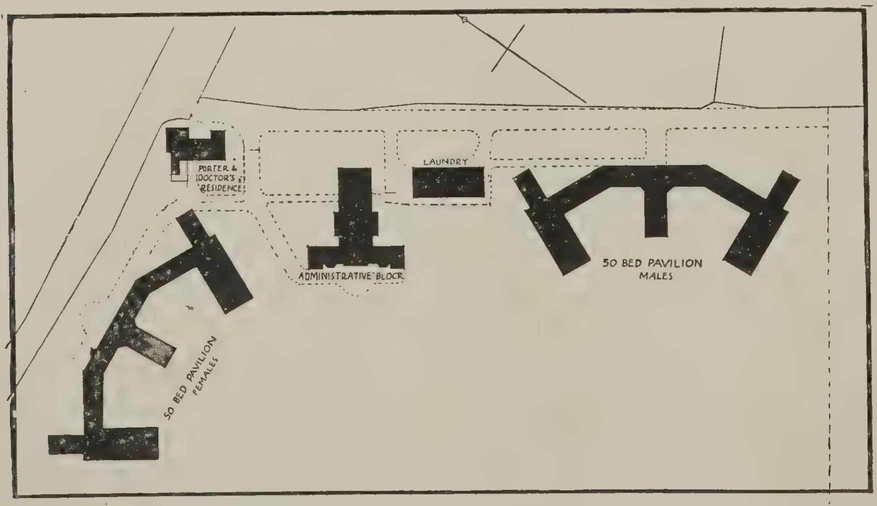
The building is lighted with electricity, the current being derived from the Chesterfield Corporation mains, and the cooking is done by gas and steam, the gas being obtained from the Chesterfield Gas and Water Board.

The special points of this sanatorium are: (1) The concrete floors throughout the patients' pavilions; (2) the absence of any attempt to heat the open-air pavilions; (3) the system of heating the open-air dining-rooms by means of a slightly warmed floor.

The total cost, including land, furnishing, and equipment was nearly £22,000, or £220 per bed. The buildings themselves cost £120 per bed. Great credit is reflected on the architects, Messrs. "W. H. Ward," of Birmingham, who have produced one of the cheapest sanatoria yet erected.

Total Cost of Sanatorium.

The following table gives the main headings of the cost of the institution.



DERBYSHIRE COUNTY SANATORIUM, WALTON, NEAR CHESTERFIELD: PLAN OF GENERAL LAY-OUT. "W. H. WARD," ARCHITECTS.

The contract for the buildings themselves was let before the war.

	£	s.	d.
Land, 13½ acres	2,117	0	0
Administrative Block	3,190	9	6
Porter's Lodge and Doctor's Quarters	963	6	0
2 Pavilions, 50 beds each	6,461	18	6
Laundry	1,179	0	0
Laundry Machinery and Disinfector	994	10	0
Drainage	1,236	0	0
Roads and Exercise Paths	944	18	6
Planting and laying-out grounds	246	1	11
Fencing	368	19	2
Electric Lighting	182	5	8
Furnishing and Equipment	2,779	11	11
Architect's and Quantity Surveyor's Charges and Advertisements	880	12	4
Clerk of Works	220	0	0
Damage to Crops, Valuation Fees and Loan Charges	107	9	2
	£21,872	2	8

The details of the items included under the headings of furnishing and equipment are set forth in the following table. The contract for blankets, bedsteads, and the bulk of the furniture were settled immediately on the declaration of war at slightly advanced prices; for the rest of the items on the average about 20 per cent. in advance of normal prices was paid.

Details of Furnishing and Equipment Included Above.

	£	s.	d.
Furniture	551	12	11
Lockers	67	4	0
Cupboards	130	5	6
Bedsteads (125) 60 with canopies	224	0	0
Mattresses (125)	210	0	0
Pillows	56	5	0
Rest Chairs	100	0	0
Linoleum	58	0	0
Rugs and Carpets	28	9	5
Blankets (625)	239	10	0
Rugs for Rest Chairs	27	14	0
Linen	233	12	5
Drapery, Curtains, etc.	66	15	9
Crockery and Glass	79	14	1
Cutlery	34	11	4
Kitchen Equipment and Ironmongery	114	5	3
Food Trolleys (2) electrically heated	50	0	0
Linen Room Equipment	24	1	5
X-Ray Installation	200	0	0
Medical Equipment	175	5	2
Outdoor Tools	30	0	0
Fire Appliances	78	6	6
	£2,779	11	11

By the courtesy of Dr. Barwise, a number of photographic views of the building are reproduced on the double-page plate in this issue.

THE R.I.B.A. RECORD OF HONOUR: FIFTIETH LIST.

Fallen in the War.

Alexander, Captain George Luard, Post Office Rifles, attached Staff [Associate, 1910; partner of Mr. Robt. Atkinson [F.]]. Killed in action.

Gascoyne, Captain Charles, Sherwood Foresters [Owen Jones Student, 1906]. Died of wounds as a prisoner of war in Germany.

Matthews, Captain John Beedel, M.C., North Staffs Regt., attached to Leicester Regt. [Student]. Killed in action.

Freaker, Serg. Allen Lionel, Artists' Rifles [Student, 1911]. Killed in action in France on October 30.

Mr. Sydney Tatchell [F.] writes: "At the outbreak of war Freaker was in camp and went to France in the early days. He did valuable work as Instructor in the O.T.C. established at St. Omer. He was offered a commission, but with characteristic modesty elected to remain in the ranks, where he felt he was doing more useful work. Freaker entered my office in 1909 as a pupil and remained as assistant. He possessed a delightful personality, loved his work, and showed promise of a brilliant career. His death is a very real loss to those who had the good fortune to know him."

Military Honours.

Gibbons, Lieut. John Harold, R.F.A., Associate, Pugin Student 1903. Awarded the Military Cross "for gallantry in the field." Lieut. Gibbons is the son and partner of Mr. John Gibbons [F.], of Manchester.

Maule, Captain Henry P. G., H.A.C., Fellow, was specially mentioned in Sir D. Haig's dispatch of November 7 for distinguished and gallant services and devotion to duty.

Members' Sons Fallen.

Wells, 2nd Lieut. Ewart Linley, B.A., Wellington (N.Z.) Infantry. Killed in action in Gallipoli, August, 1915. Aged thirty-one.

Wells, Lieut. Ronald Graham, B.A., Royal Sussex Regiment. Killed in action in France, March 4, 1916. Aged twenty-five.

The foregoing, both of them in the scholastic profession before the War, were the sons of Mr. Arthur Wells [F.], of Hastings.

Promotions.

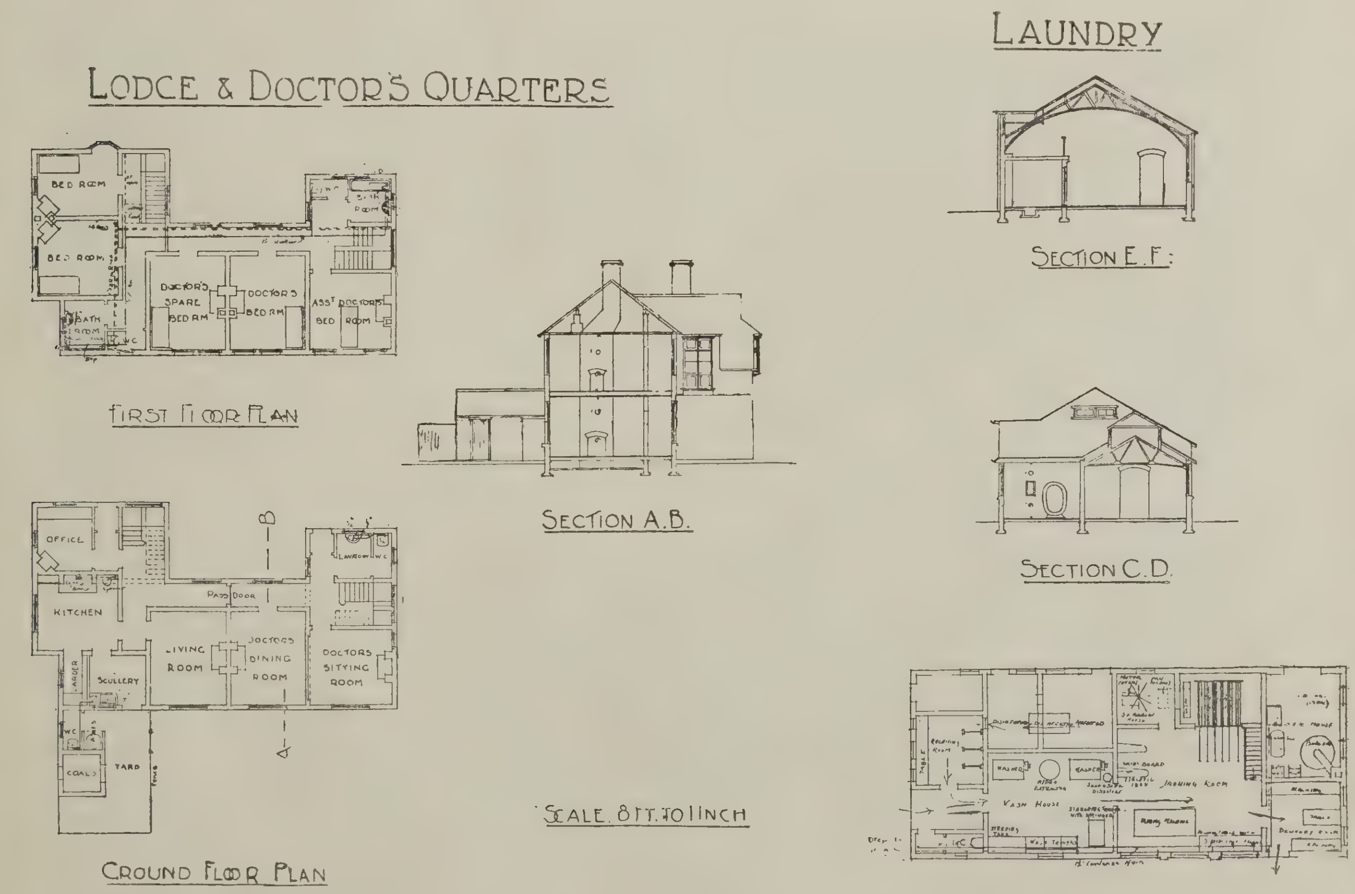
The following promotions have been gazetted:

Harding: C. A. [A.], Lieut., R.N.V.R.

Chaikin: B. [Licentiate], Lieut., R.A.M.C.

Bull: W. W. [Licentiate], 2nd Lieut., R.F.C.

Barrow: J. W. [A.], East Surrey Regt., Lieut., R.E.



DERBYSHIRE COUNTY SANATORIUM, WALTON, NEAR CHESTERFIELD: PLANS, ETC., OF LODGE, DOCTORS' QUARTERS, AND LAUNDRY.

"W. H. WARD," ARCHITECTS.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

Control of Building After the War.

At a meeting of the Royal Institute of British Architects on Monday, February 7, 1918, at 3.30 p.m., Mr. Herbert Wills will move the following resolution:—

"That in view of the extremely important interests involved, this Institute should take action in conjunction with other bodies to represent to the Government their strong objection to the continuance of any system of control over building after the war."

Mr. Mark H. Judge, A.R.I.B.A., has given notice that he will move the following amendment to Mr. Wills's motion:—

"That in the opinion of the Institute great changes are necessary in the by-laws and other regulations in connection with building construction, and that they should be so amended as to give the greatest liberty of action where building construction is carried out under qualified direction, under the supervision of the municipal authority; further, that the Council be requested to convene a conference of corporate bodies representing architects, surveyors, and builders, and the Associations representing urban and rural municipal authorities, to consider, and, if approved, present a memorial to the Government on the matter."

Next Informal Conference.

An informal Conference will be held at the Royal Institute of British Architects on Wednesday, January 9, 1918, at 3 p.m., when a discussion on co-operation amongst architects and specialisation will be opened by Mr. H. V. Lanchester. Professor Beresford Pite will preside.

NEWS ITEMS.

"The Communal Wash-house."

We regret that by an oversight we omitted to state that Mr. J. Ernest Franck, A.R.I.B.A., was the architect for the communal wash-houses at Hammersmith, illustrations of which appeared in our issue for December 19. These wash-houses are attached to the Public Baths, for which, it will be remembered, Mr. Franck was also the architect.

Change of Address.

Messrs. A. and F. Manuelle, Ltd., granite and quarry owners, marble and stone merchants, announce their removal to more convenient offices at 4 and 6, Throgmorton Avenue, London, E.C.2. Their telephone number will remain as heretofore: London Wall No. 8836 (two lines), and their telegraphic address will be "Feldspar, Ave, London."

Projected New Theatre for London.

When the war is over (it is stated in the "Daily Mail") a new building to take the place of the Empire Theatre will be erected on its site and will also cover all the space at the back as far as Lisle Street. Mr. Alfred Butt, managing director of the Empire Theatre, has purchased on behalf of the company the freehold of the Empire Theatre from the heirs and executors of the late Mme. Nicol, and the freehold of the Queen's Hotel. Mr. Butt's new scheme, building and entertainment together, will involve an outlay of £500,000.

A Year's Building in Leeds.

Despite the restrictions imposed upon the building trade by the exigencies of war, considerable work was completed in Leeds during the year ended November 30, 1917. The Leeds City Engineer and Building Surveyor report that during the year there were completed thirteen factories and workshops, two warehouses, one school, 450 "miscellaneous buildings," and other structures. The estimated value of completed buildings shown on approved plans, exclusive of site value, was £251,638.

British Artists at the Front.

"The Western Front," illustrated by Mr. Muirhead Bone, will be followed by a companion publication under the title of "British Artists at the Front." Each part of the new series will contain reproductions in colours after work by artists who have been given facilities to make drawings. Those on the official list include Mr. Muirhead Bone, Mr. Francis Dodd, Mr. Eric Kennington, Mr. John Lavery, Mr. James McBey, Mr. Paul Nash, Mr. C. R. W. Nevinson, Mr. William Orpen, and Mr. W. Rothenstein. Part I. will be illustrated by Mr. Nevinson. The introductions and the descriptions of the plates will be written as before, by Captain C. E. Montague.

Burnley and District Building Trades Employers.

The annual general meeting of the Burnley and District Building Trades Employers' Association was held at the Bull Hotel, Burnley, when there were about eighty present, with Mr. T. Foster, President of the North-Western Federation, in the chair.

The report on the work of the Association stated that in 1916 the Association had 136 members, a decrease of 13 on 1915; now they had 134 members, of whom eight members are in the services, and are retained as honorary members. Three members have been removed by death—Mr. Frank Helm, Mr. Robinson, and Mr. T. Roberts. The Association has played its part in the larger arena of the North-Western Federation (of which Mr. T. Foster is the president), and of the National.

Mr. Foster, the report stated, could be assured that he had the respect and esteem of the members of the Association and they hoped he might long be spared to extend his great efforts for the good of the building trade and the community at large.

HOUSING AND TOWN-PLANNING AT THE CLOSE OF THE WAR.

Following is the conclusion of the interim report of the Technical Conference set up by the National Housing and Town-Planning Council, of which instalments were printed in our issues for December 5 and December 19, 1917:—

Labour-saving Appliances.

With regard to point (3) in the terms of reference, viz., the provision of labour-saving appliances in the equipment of houses, the members of the Conference desire to point out that this is a subject which has as yet not received the attention in this country its importance demands. Much progress has been made in this respect in the United States and Canada.

The members of the Conference are now inquiring into the possibilities of labour-saving appliances, such as those for the cleansing and drying of clothes, the supply of hot water for baths and other domestic purposes, etc., the heating of houses, etc.

They find that the provision of appliances to serve these ends is to be included in the projected housing schemes of the Dundee City Council, and Mr. James Thomson—the City Engineer of Dundee—has undertaken to prepare a report on this subject which will be submitted in due course.

Opportunities for Experiment.

With regard to point (4), viz., the provision of useful opportunities for experiment, the members of the Conference are strongly of opinion that in view of the great increase in the cost of building, both the Government and local authorities should give all the aid in their power to useful experiments in building construction.

With the same aim the Department of Scientific and Industrial Research should grant facilities for experimental work in such directions as will be of service to the building industry.

The Possibilities of Standardisation.

With regard to point (5), viz., the scope and possibilities of useful standardisation in the production of component parts, the members of the Conference are unanimous in condemning the standardisation of houses. They regard proposals to secure this end as likely to be productive of a tiresome monotony, only a little better than that of the industrial areas of our great cities. Up to a certain point standardisation carries with it economy, but when that point has been passed the production in greater bulk does not carry with it any special economy, and there is, therefore, no reason on this ground for standardising houses.

But whilst the members of the Conference are opposed to the standardisation of houses, they are fully convinced that the possibilities of the standardisation of component parts are very great indeed.

To a great extent this standardisation has, however, already taken place. Bricks, blocks of stone, concrete slabs, slates, tiles, and, to a small extent, doors and windows, are already standardised. But there is still a valuable field for the standardisation of fittings and other building materials.

A Committee of the Conference is now considering this subject, and a report will be published in due course.

An Amending Public Health Act.

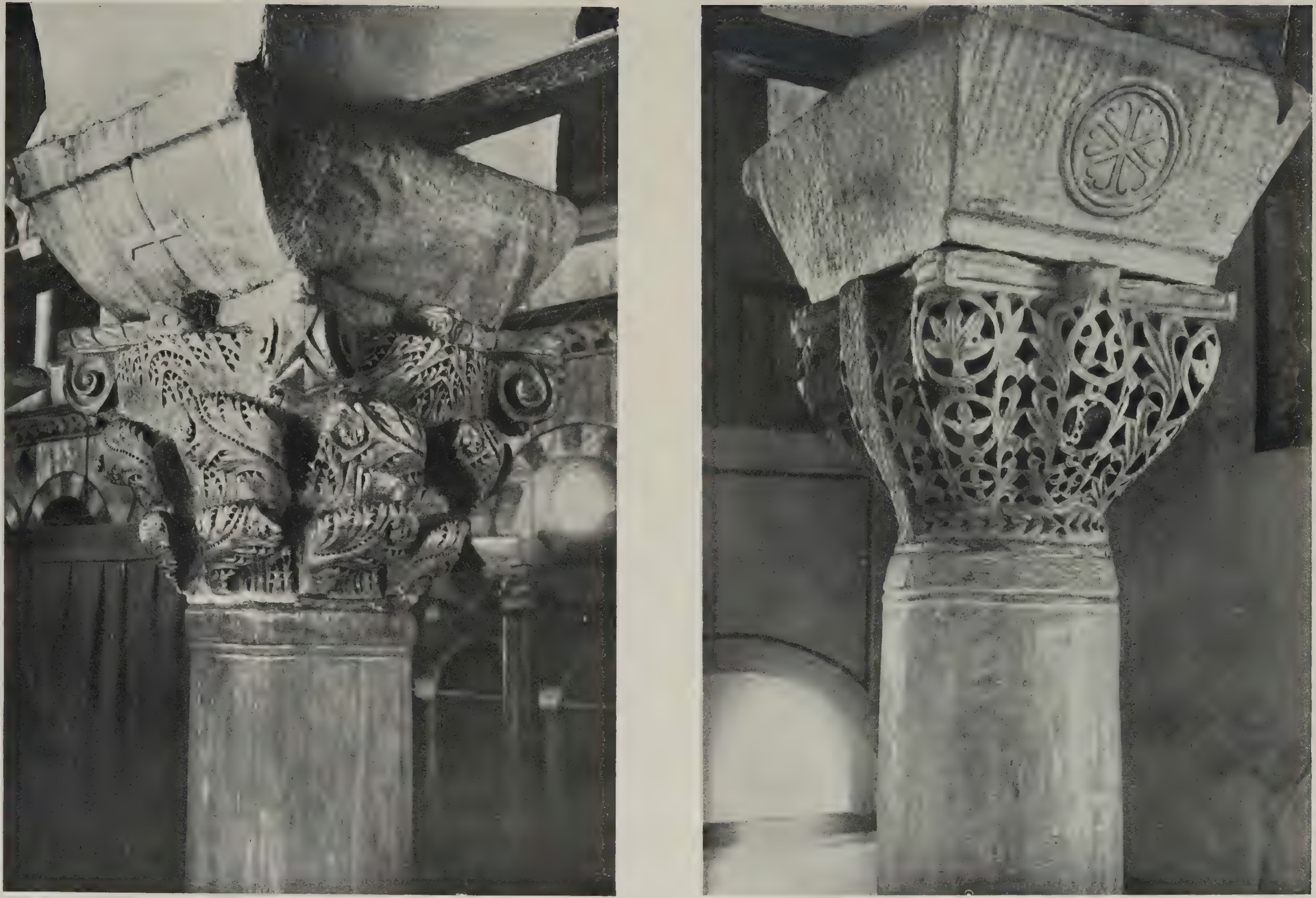
The members of the Conference have unanimously passed the following resolution with regard to the general question of Bye-Laws:—

"That it is desirable that the Government should expedite the passage of an amending Public Health Act dealing with the structures of all buildings, and more particularly in relation to housing schemes.

Resolution relative to the appointment of a deputation to submit the foregoing report to the President of the Local Government Board and the Ministry for Reconstruction:—

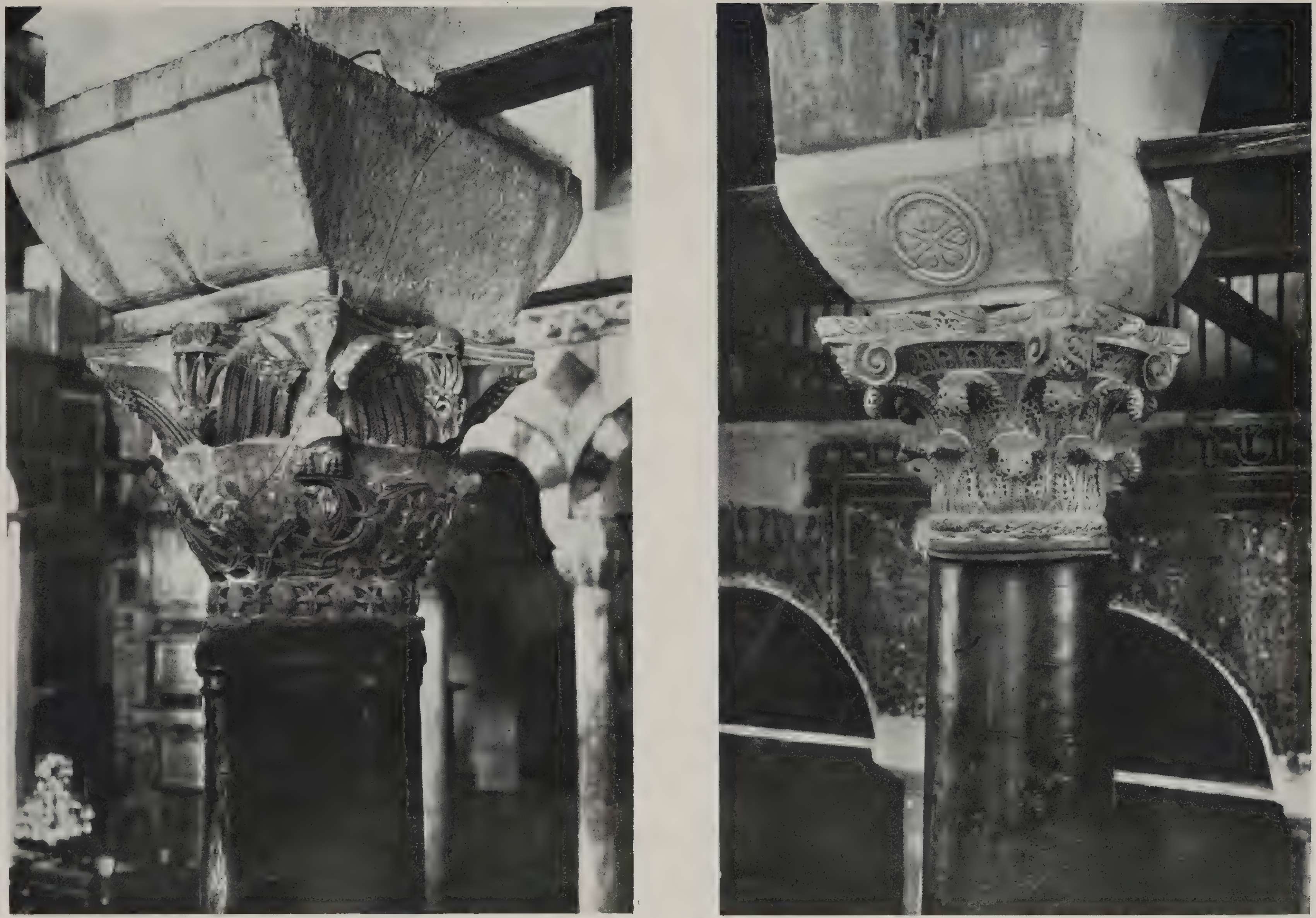
The following resolution has been unanimously agreed to by the members of the Conference:—

"That this Interim Report be submitted by means of a deputation to the Right Hon. W. Hayes Fisher, M.P. (President of the Local Government Board), and the Right Hon. C. Addison, M.P. (the Minister for Reconstruction), and that these Ministers of State be respectfully asked to receive this deputation at an early date for the purpose of stating the case in favour of the various proposals contained in the Report."



Photos by the Sezione Fotografica of the Italian Army.

DETAILS OF CRAFTSMANSHIP (SERIES III.). V.—CAPITALS FROM THE INTERIOR OF THE CHURCH OF ST. DEMETRIOS, SALONIKA.



Photos by the Sezione Fotografica of the Italian Army.

DETAILS OF CRAFTSMANSHIP (SERIES III.). VI.—CAPITALS FROM THE INTERIOR OF THE CHURCH OF ST. DEMETRIOS, SALONIKA.

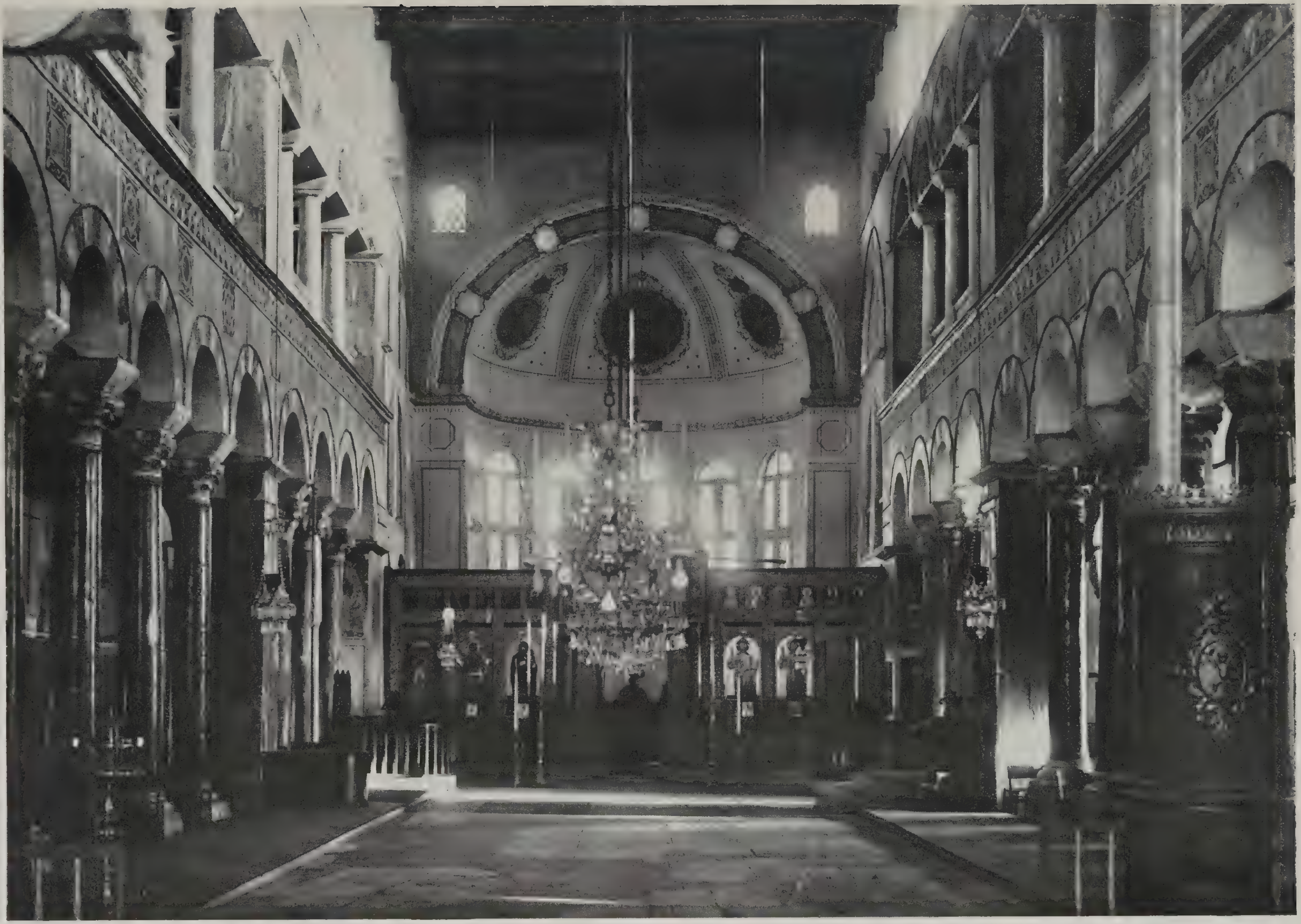
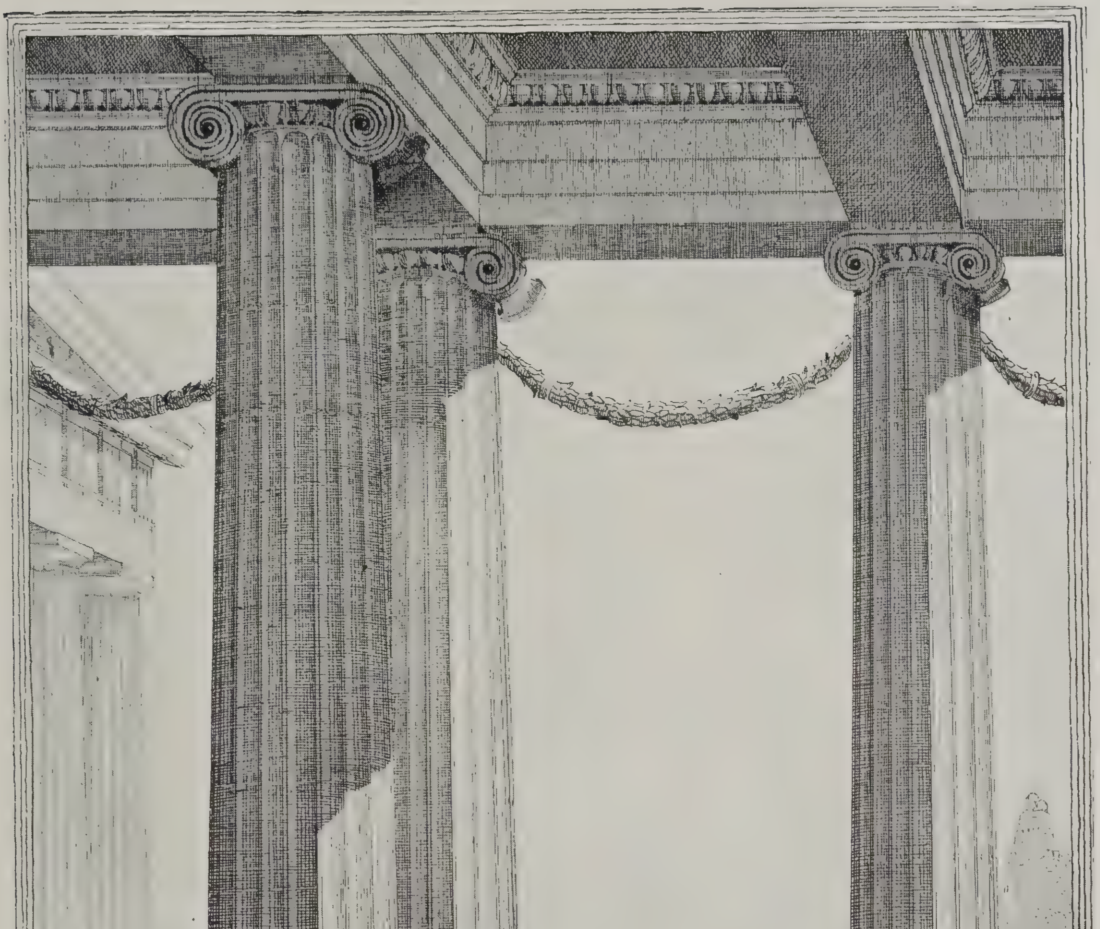


Photo by the Sezione Fotografica of the Italian Army.

(Note: Screen and Decoration of Apse are Modern.)

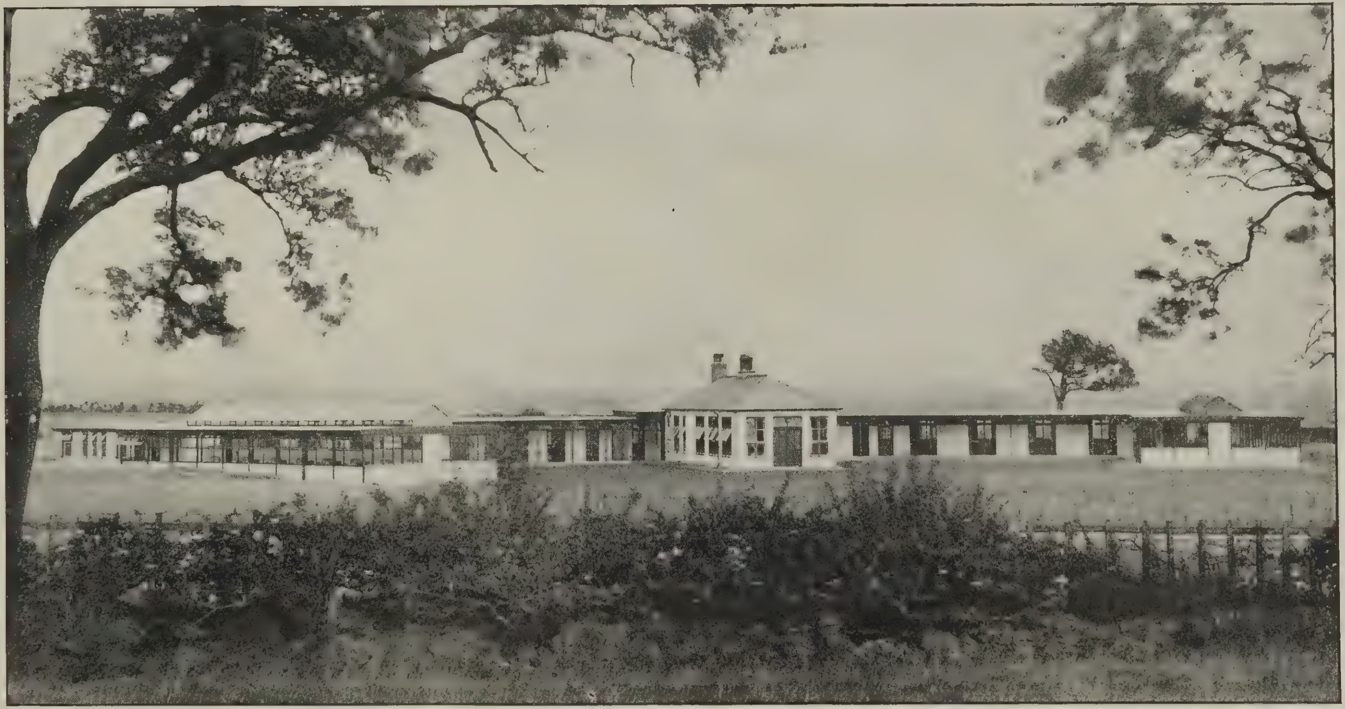
MONUMENTAL ARCHITECTURE (SERIES II.). XXXV.– CHURCH OF ST. DEMETRIOS, SALONIKA: GENERAL VIEW OF INTERIOR.



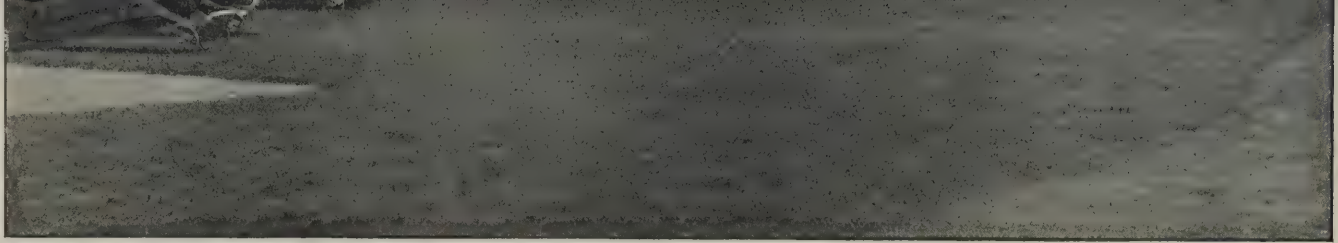
ARCHITECTURAL DRAWINGS AND SKETCHES. IX.—"UNDER A TEMPLE PORTICO."

BY H. H. STATHAM, F.R.I.B.A.

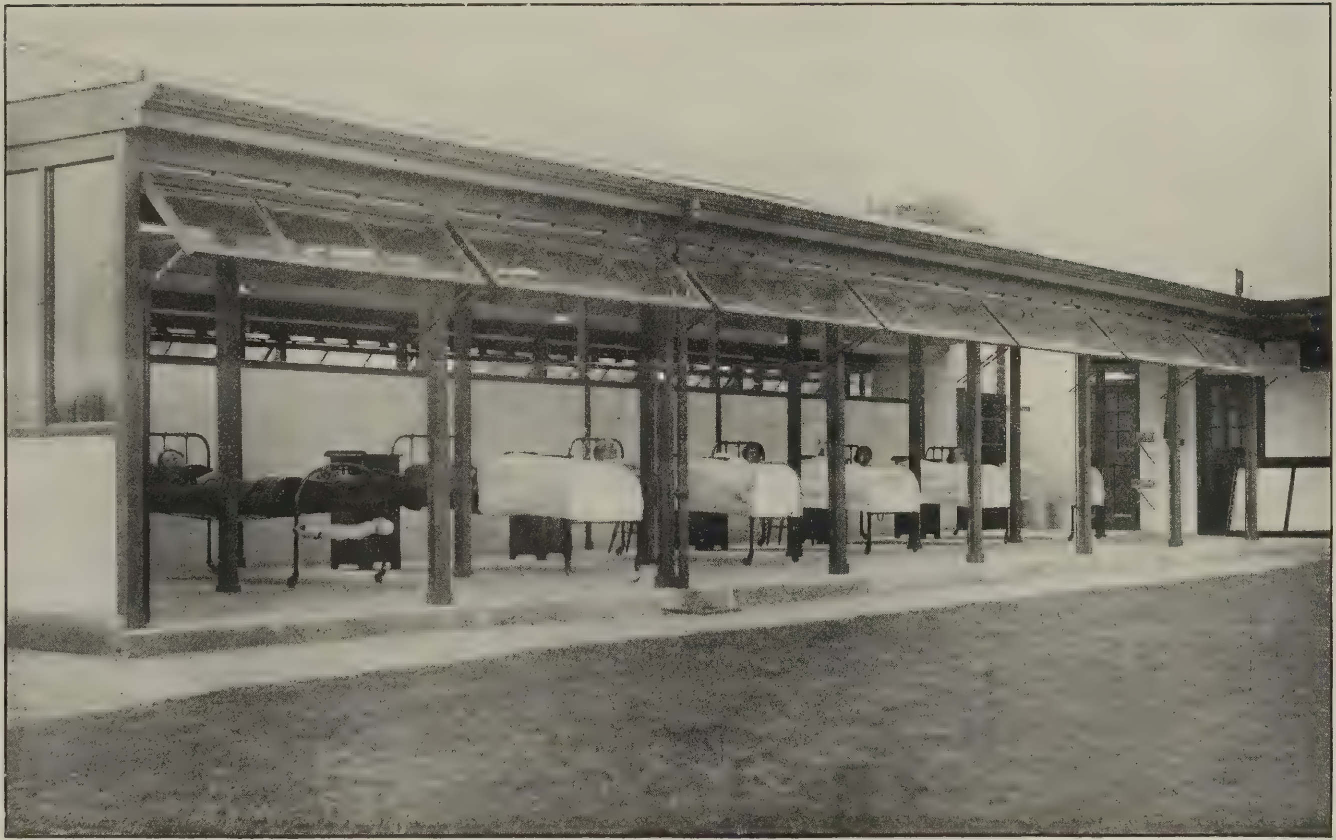
ARB



View of Male Pavilion, showing Dining-room in centre, single rooms on either side, and Open-Air Pavilions at the two extremities.



View of Single Rooms, with Patients on Rest Chairs.



One side of Open-Air Pavilion, showing Patients in bed with Protective Canopies over Feet

CURRENT ARCHITECTURE (SERIES IV.). XLII.—DERBYSHIRE COUNTY SANATORIUM, WALTON, NEAR CHESTERFIELD.

"W. H. WARD," ARCHITECTS.

(For description see pages 9—11.)

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

JANUARY 9, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1201.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause a wastage of effort and materials that could obviously be reduced to a minimum but for casual and erratic purchasing.

WE print in this issue two very interesting letters on the National Housing Competition—one on certain matters of principle, the other on a point of detail. Mr. G. Ll. Morris will pardon our saying that we think his contention a little doctrinaire. Always supposing that he is really serious in his suggestion that the Institute ought not to encourage any sort of competition among its members, we hasten to agree with him on the point of abstract principle, and in the same breath we venture to applaud the Institute on its timely preference for the practical view—on its opportunism, if that word is preferred. In taking that view we are, it may as well be frankly admitted, as inconsistent as the Institute, or as Mr. Morris himself. We are all tarred with the same brush, this being an inconsistent world, in which we must all be content to do not what we would, but what we can or what we must. Most of us, it seems safe to say, are convinced that the Institute is doing its best in the circumstances, and are satisfied to leave it at that, without raising delicate and inopportune questions of principle. Besides, the matter of architectural competitions is, so far as the Institute is concerned, *res judicata*. It nodded assent to them long ago, made rules for conducting them (has just broken one of them!), and appoints assessors for them. Mr. Morris is very late with his protest; but of course he is entitled to preach his pure doctrine in season and out of season, and his courage in doing it at this most inauspicious moment is really as admirable as it is futile. It is exhilarating to see doughty tilting at a windmill.

* * * *

What alternatives had the Institute? Three suggest themselves spontaneously. It could have held austerely aloof from the unclean thing, leaving the Government (which it had bombarded with offers of help) to manage the housing business wholly unaided; it could have given platonic advice which would have been misunderstood or disregarded; or it could have undertaken the arbitrary selection of architects to do the work. In the first case it would have completely stultified, in the second as completely sterilised itself, and in the third choice it would have been hurled off the Tarpeian in sequence to more or less unjust charges of gross nepotism. It seems to us that in arranging a national competition to meet a national emergency, the Institute took not perhaps the only practicable course, but the course beset with fewest and least formidable obstacles. It is admittedly a matter of expediency. There is no reason, however, why Mr. Morris, or anybody else who is entitled to a hearing, should abstain from criticising the policy of the Institute; and it will be remembered that the President, Mr. Henry T. Hare, has avowed his preference for sincere opposition as compared with mere adulation. Mr. Morris's implied dislike of competition is, we imagine, not generally shared.

* * * *

There are those who hold that competition, in multitudinous forms, is all-pervasive, and is a law of progress, if not of life; and that architectural competitions are, on the whole, justified by their fruits—that, at all events, if the alternative to them leads to monopoly, nepotism, exclusiveness, competitions are the smaller evil. That, however, is a vexed question; and Mr. Morris's *reductio ad absurdum* of doctors competing for a hospital post and lawyers exhibiting draft Bills is more humorous than relevant, because it ignores important distinctions peculiar to diverse objects and functions. Lawyers and doctors compete in the way most convenient to them, and architects wear their rue with a difference. Undeniably Mr. Morris hits a blot when he says that "hundreds of qualified architects are designing little cottages for builders, land companies, quantity surveyors, and the public generally, to utilise free of charge." That is true in only too large a measure; but the evil is inveterate, and the Institute may be trusted to do what it can to mitigate it, and that, we fear, will be very little. There is, however, some small degree of consolation in knowing that architectural ideas have been at length imported wholesale into a field from which they had been too generally excluded, and that therefore the community will gain immensely where, unfortunately, the architect has little or nothing to lose. On Mr. Russell's letter comment seems unnecessary; but we commend it to the attention of the Institute.

* * * *

An interim report published by the Irish joint-committee on building materials raises more questions than it settles. This is perhaps excusable in an interim report; but the promise of fruition which such documents are usually expected to convey is almost entirely absent from this specimen. That, we hasten to add, is not the fault of the joint-committee (which consists of members of the Royal Institute of Architects of Ireland and of the Dublin Development Association), but is due to circumstances beyond their control. They piped merrily enough, but the dancers were languid. Most disheartening apathy has dogged the well-directed efforts of the committee. They sent to manufacturers a large number of circulars inviting information and support, and, they state, "generally speaking, manufacturers have not replied, and appear not to realise the advantages of having their goods brought before the notice of the architectural profession, building owners, and the general public at the present time, so as to secure to Ireland a considerable share of the business which is passing to other countries." It is not without reason, therefore, that the committee confess, near the end of their report, to being "impressed, as the result of their investigations, with the prevalence of apathy." They strongly urge the necessity for the complete reform of primary, secondary, and technical education, and suggest the establishment of some State organisation for the fostering and development of Irish industries, arts, and sciences. It would seem that the committee has a formidable task in hand—the regeneration of Ireland through industrial reorganisation.

It seemed to be a foregone conclusion that, sooner or later Mr. Edwin Landseer Lutyens, A.R.A., F.R.I.B.A., F.S.A., would receive the honour of knighthood. By his works he is the most impressive and pervasive of English contemporary architects; and he is rendering important professional services to the State in the planning and construction of the new Delhi. That he is an artist is no less manifest in the strongly individual character of his buildings, which are invariably stamped with beauty and distinction, than in his Associateship of the Royal Academy, and that he was at one time in pupilage to Sir Ernest George, R.A., is not without significance. Also, he was awarded a gold medal at the Paris Exhibition of 1900, and a medal at the Fine Arts Exhibition at Rome in 1911. Born on March 29, 1869, he began practice in 1888, and soon became one of the busiest architects in London. Among his outstanding works are the British School at Rome; the Art Gallery and Rand Regiments Memorial at Johannesburg; houses and a church in the Hampstead Garden Suburb; Marsh Court, Stockbridge; Heathcote, Ilkley; New Place. Shedfield; and many other country and town houses, each and all bearing the unmistakable Lutyens seal, and yet each possessing its own distinctive character. He has also effected many important restorations, as at Lindisfarne, Howth, and Lambay: and he has planned many beautiful gardens, including those with an orangery at Hestercombe, Somersetshire. He married, in 1897, Lady Emily Lytton, daughter of the first Earl of Lytton. Sir Philip Edward Pilditch, J.P., who has also received the honour of knighthood, is the head of the firm of Messrs. Pilditch, Chadwick, and Co., architects, and is consulting architect to several public authorities. He has contested two Parliamentary elections—St. Ives in 1906, and East Islington in 1910—and has been since 1907 a member of the London County Council, of which he was vice-chairman in 1913-14. He takes a keen interest in poor law, social, and taxation reform questions.

SIR EDWIN L. LUTYENS, A.R.A., F.S.A., F.R.I.B.A.

THE PLATES.

A Late Eighteenth-century Doorway.

THIS delightful doorway, now in the Victoria and Albert Museum, belonged to a house that, up to a few years ago, stood in Great George Street, Westminster. With its gracefully proportioned columns and delicate detail, it is an admirable specimen of the work that was abundantly produced during the second half of the eighteenth century.

The Detroit Athletic Club, Detroit, Michigan.

In its main characteristics this building follows the architecture of the Italian Renaissance. It is six storeys in height, and is topped with a roof garden. The upper storey is treated in the form of a frieze, the sculptured panels between the windows bearing the seals of the important athletic clubs of America. The pedimented windows on the second storey indicate the dining-room; the large windows below, the lounging and billiard-rooms; the smaller windows above, the minor rooms; the arcade, the high-ceilinged apartments; and the smaller windows of the upper floors the sleeping apartments. These last are individual chambers, and *en suite*, and all are fitted with shower and tub baths. An interesting feature of this building is the construction on the fourth floor of a swimming bath. This occupies the entire south front of the fourth floor, and is two storeys in height, with a mezzanine for visitors. The swimming pool is 25 ft. by 75 ft. long, 8 ft. deep at its deepest point, and 4 ft. at its shallowest point. It will readily be appreciated that the construction of a swimming pool on the fourth floor provided a considerable problem in engineering, and was possible in this portion of the building only because reinforced concrete was used for the construction. The entire building was carried out on the Kahn system of reinforced concrete. The floors consist of the Kahn hollow steeltyle floor, which, being both fireproof and soundproof, offers many advantages for this class of building. Hy-Rib was extensively used throughout the entire construction in the formation of both flat and suspended ceilings. In some cases, as, for instance, in the main entrance hall, a heavy ornamental ceiling was applied directly to the suspended Hy-Rib lath. In other cases, as, for example, in the grill-room, a dome ceiling effect was obtained by means of curved Hy-Rib. It is interesting to note the excellent effect which was secured in many rooms by applying the decorative treatment directly to the exposed concrete. The building was erected at a cost of one million dollars, and the money required was raised entirely among the members. Mr. Albert Kahn was the architect, in association with Mr. Ernest Wilby.

The Cathedral of St. Isaac, Petrograd.

In the person of Comte Monferrand the Russians, in the early part of last century, secured a French architect of acknowledged ability and great enterprise, as well as an accomplished draughtsman. His claim to distinction rests on that much-maligned building the Cathedral of St. Isaac (see double-page Supplement), one of the largest and certainly one of the most expensive modern churches in Europe; but, notwithstanding its advantages of site and expensive construction, it has many defects in design. In the year 1818, after several attempts had been made to secure designs from various architects, the Chevalier de Monferrand was called upon. He studied the design of St. Peter's at Rome, St. Paul's in London, and the Panthéon at Paris, and his design included the best ideas of Bramante, Wren, and Soufflot. For forty years Monferrand superintended the construction of the cathedral, and lived to see it completed and to take part in the dedicatory service in 1858. He died shortly after. St. Isaac's is admittedly inferior to its prototypes.

HERE AND THERE.

THAT goodly collection of modern school designs which made up the bulk of the annual special issue of this Journal awakens many memories—pensive, like those recorded in Gray's "Ode on a Distant Prospect of Eton College," or serio-comic like hose in Hood's "Ode on a Distant Prospect of Clapham Academy," where the architectural features that most forcibly impressed the imagination of the poet are summarised in this stanza:—

> "Ay, that's the very house! I know
> Its ugly windows, ten a-row!
> Its chimneys in the rear!
> And there's the iron rod so high,
> That drew the thunder from the sky
> And turned our table-beer!"

Since Hood goes on to confess, "There I was birched," t is evident that the Busby tradition had not become obsolete in his day, and that "Dr. Birch and his Young Friends" still held sweet converse, in spite of the incursion of the cane noted in "The Schoolmaster's Motto":

> "You wilful young rebel and dunce!
> This offence all your sins shall appear at:
> You shall have a good caning at once—
> There!—'Palmam qui meruit ferat!'"

* * * *

It is a good motto, though a trite one, and I fancy it could be applied to the late Edward Robert Robson, whom I am disposed to acclaim as the father of modern school building, and as a pioneer in the literature of the subject. He was the first architect to the School Board for London, and in the preface to his "School Architecture," which was published by Murray in the seventies, Mr. Robson wrote: "Amid the labour nvolved in the erection of a hundred new schoolhouses, this volume would certainly not have been undertaken except from a sense of its imperative necessity, as urged from many different sides. My principal motive for undertaking it arose from the singular want of English works on school-planning, and the circumstance that the subject had not previously been regarded by architects as possessing much mportance. My professional connection with the School Board for London having made me the instrument of new developments in the planning of elementary schools, and afforded opportunities of a kind never before enjoyed by any one, seemed to carry with it a kind of duty. The appearance, in the public prints, however, of descriptions and illustrations of new school-buildings utterly unsuited to their purpose, became the determining reason."

* * * *

He, like Fergusson and many another contemporary writer on architecture, was heavily handicapped by the old, slow, and costly method of producing illustrations, which had to be drawn on wood and engraved by hand. He gives us three hundred "cuts," many of which were drawn by Mr. H. W. Brewer and engraved by Mr. James Cooper. They must have taken a prodigious time to do—probably as many months as the photo-mechanical process, which began to oust wood-engraving some time in the 'eighties, would now require days. (Perhaps I may be forgiven the remark that it was not until this Journal was established that anything like full advantage was taken of the half-tone process for the facile illustration of architectural work: he "Schoolmaster's Motto" applies.) There are many llustrations of foreign schools; for in the spring of 873 Mr. Robson went on a tour of school inspection hrough Belgium, Germany, Austria, Switzerland, and France, taking with him Mr. Moss, clerk to the Sheffield School Board. I am bound to say that the ugliest elevations in the book are those brought from Germany.

* * * *

Their frightfulness needs no further explanation if we remember that compulsory primary education originated in Prussia, and, further, that, as Mr. Robson says, "the system of public instruction is almost, if not quite, as military in spirit as that which governs the army, and the buildings do not escape the *régime*. If Berlin may be described as a vast barracks, German schools may equally be classed as a series of small barracks." But the elevations are seldom as simple as this description suggests. Often the architect lets himself go in lavish decoration. At the gymnasium of St. Andrew, Hildesheim, for example, "the purely decorative element, as distinct from the constructional, . . . expresses itself by abundance of turrets, buttresses, crockets, finials, and other ornamental features"—too numerous to mention, he might have said, but he prefers to say, "familiar to Gothic art"; and he goes on, "The central portion of the principal front is profusely ornamented with sunk tracery and patterns, until, rising in shapes of polygonal towers, capped with conical roof, the whole terminates in a forest of gablets and pinnacles." It is an orgy of unrestraint, recalling Coleridge's observation on the "too-muchness of the Germans." They overdo everything, and hence, in art, are poles asunder from the Greeks—I mean, of course, the ancient and genuine Hellenes.

* * * *

When Mr. Robson was in Prussia, no women teachers were employed there. He infers that women were rather despised. In support of this deduction, he mentions that "in the lower ranks of life in Germany, women reach a hardship of servitude and depth of degradation very rare in England. . . . The thorough character of the education, and the compulsory attendance of every child at school, do not prevent women from becoming the bricklayers' assistants on the construction of buildings, and carrying their loads up the series of barred inclined planes which there do duty as ladders, from the bottom to the top of the scaffold. This feature is universal in Germany and Austria, and may be explained by the necessity of employing on military service the men who would otherwise act as labourers." He adds, "The explanation forms no real excuse. The use of women as bricklayers' labourers, and their non-employment as teachers, are blots of the most serious kind on the fair face of German education as judged by its civilising results." Mr. Robson confesses himself an inexperienced writer, and the hazy rhetoric of that last sentence bewrays him. One sees what he means—that the contempt in which the Germans held their women raised doubts as to the civilising virtue of the Prussian system of education. That system may have had a fair face, but we know now that, as Mr. Robson seems to have suspected, it had a false heart. This hypocritical conjunction is inveterate with the Germans. It produces in their cities, as Mr. Robson noted, the bad brickwork behind the smooth stucco, and (as perhaps he did not know) the broad fair street—a model of town-planning—that masks the most hideous conditions of unhealthy and immoral overcrowding. We have found out to our cost that it is a profound error to take the German at his face value—he is cunning in camouflage, but he has been found out, and is known for what he is.

DIOGENES.

DEVELOPMENT OF THE COTTAGE.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

(Concluded from page 4, No. 1200.)

THE modern cottage has the addition of a scullery, and whereas the old cottage had a pantry where quantities of food were stored, this is now merely a small larder or ventilated food cupboard sufficiently large to accommodate one week's food supply; and if the arrangements of an old cottage were more primitive, less easily kept clean, and perhaps more untidy, they were certainly more generous and more simple. In short, whereas the old cottage consisted on the ground floor of one or two large rooms in which everything was kept on shelves or in presses, the ground floor plan of a modern cottage consists of, besides the living room and scullery, a whole series of small spaces closed off with separate doors for coals, a bath, food, and w.c.—very difficult to plan, it will be perceived, and tending to great complexity.

But I shall elaborate the relative value and use of these in my next lecture.

Changes in Design and Materials.

But there has intervened a great change in the use of materials and in the initiation of the design. Recent improvements in facilities for transporting materials have to a large extent obliterated local character, and the high finish which has followed the application of machinery has ousted out the craftsman, done away with that interest that is aroused at the sight of individual workmanship, and instead transferred the interest to the qualities of purely academic design.

With all our modern machinery, our wide choice of materials, and our facilities for transporting them from long distances, it amounts to something approaching an affectation to attempt to create a modern village that will have the appearance of having been produced by local craftsmen on the old lines.

The modern village must be built on new lines. The picturesqueness of history and the tool mark of the craftsman must needs give place to studied composition and an academic use of materials and choice of detail that will both be scientific and economic and at the same time preserve something of the cottage tradition in the design. We are bound to have a certain amount of standardisation in cottage building in the future, and, I think, not only in the details but, within limits, as regards the cottage themselves. But there must be composition, enough standard types to produce a certain amount of variety and interest, and though except in its furnishings every cottage cannot vary, every street may have an individuality of its own.

Standardisation Not Reactionary.

In advocating the standardisation of the cottage one is reminded that a principle is being propounded which at first sight appears to be decidedly reactionary. But the idea is not altogether new. We have a village of standard cottages at Milton Abbas, in Dorsetshire, built in 1794. The idea would appear to be decidedly reactionary in view of the accepted interpretation of the teachings of Ruskin and Morris and the schools of thought of which they were the leading lights.

These schools, which stand for the consecration of the individual and of individual labour, would seem to be utterly opposed to any system of standardisation, holding the belief, as they do, that there is no value in things made by machines.

Ruskin says (and this read in the light of what is now happening): "It is verily this degradation of the operative into a machine which, more than any other evil of the times, is leading the mass of the nations everywhere into vain, incoherent destructive struggling for a freedom of which they cannot explain the nature to themselves"; and again: "All effectual advancement towards the true felicity of the human race must be by individual, not by public, effort." But this sweeping statement he neutralises by saying: "Certain general measures may aid, certain general laws guide such advancement, but the measure and law which have first to be determined are those of each man's home." All this is very true; in the abstract the teachings of Ruskin are always true; but if there is anything in economic production, if there is anything in organisation, the measure and law which Ruskin says should guide advancement must ensure that cohesion and coordination of individual effort which in the great impetus of modern movements means a certain amount of standardisation.

The standard cottage will depend for any attraction that it may possess, not upon the tool marks of the workman, nor upon its peculiarity or idiosyncrasy, nor in a word upon its individuality, but upon more general characteristics, such as suitability to purpose and breadth of treatment in design.

It will not be so much the home of an individual who is an anarchist as the home of a member of a certain class of the community; of a communist. And thus we shall get with the standardised cottage, not a village in which each separate dwelling reflects and expresses the foibles of its tenant or what to-day would be the expression of these as understood by an architect: but instead a thoughtfully composed collection of groups of similar units, each of which contributes to the making of a composite design, and each of which bears the impress of being part of a carefully considered scheme.

The standard cottage is an essential appendage of a highly organised social system, and without it we cannot have that which lies at the very root of national efficiency, organisation, and economy.

If the war has proved anything it has proved that national efficiency in the future will depend almost entirely upon good organisation; organisation is the keynote of the success not only of the modern nation, but also of the modern community.

Organisation demands the marshalling of individuals having similar interests, and within limits these should follow uniformity in the appearance of their homes. But just as an organised effort which is carried so far as to eliminate entirely the individual support, and where the individual becomes stereotyped into a mere cog in a wheel, will merely produce mechanical progression, so the standardisation of the cottage, unless limited to community interests, and unless so unrestricted as to allow of the expression of the individual within these limitations, will produce nothing but a dull depression, and a monotony suffocating to the soul. And, therefore, it would seem that in the villages of the future, where a certain amount of standardisation must obtain, cottages should be placed on their sites as component parts of a composition, and should be furnished, curtained, gardened, and in some cases painted, without any sort of outside interference, and in accordance with the tenant's personal whim, for it is here that he will be afforded that opportunity of converting his standard cottage into a veritable home.

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* Concluding part of the fourth of a series of lectures delivered at University College, London.

THE LINCOLN STATUE CONTROVERSY.

SELDOM has opinion in the world of art been more sharply divided than by the proposal to send to London, for erection in Parliament Square, a statue of Abraham Lincoln. In the first instance it was intended that the London statue should be a replica of St. Gaudens's fine work at Chicago; but subsequently the American committee in charge of the matter decided in favour of the figure by George Gray Barnard. Below we reproduce (from a recent issue of the "Journal of the American Institute of Architects") photographs of both figures, from which their respective merits may be fairly judged.

Those who favour the St. Gaudens statue do so mainly on the ground that, while not pretending to be an exact likeness of Lincoln, it expresses the "monumental" and impersonal character of the great American. St. Gaudens, they claim, has detached Lincoln from his everyday surroundings and invested his outward physical aspect with symbolic attributes.

The advocates of the Barnard figure claim that what is wanted is no "idealised effigy," but a living portrait, so that we may see Lincoln, not as other people conceive him to have been, but as he really was. There is much to be said for both points of view; and, though neither provides a perfect solution, it is difficult to strike a wholly satisfactory course between the two.

From the accompanying illustrations it will be seen that both sculptors have accomplished their purpose. St. Gaudens has given us a fine dignified Lincoln, in which all the great qualities of the man seem to be synthetised and expressed. But the physical likeness is not striking. Barnard, however, has gone to the extreme of realism (it is said that he modelled the face from a death mask), and given us a statue which would appear to be unnecessarily lifelike. It is not a graceful figure; indeed, it is gaunt and ungainly to the point of caricature. The frock coat would be better suited to a much stouter man, for it is made to hang in loose baggy folds. Hands are unduly big and bony, and feet are unnaturally large. Barnard, it would seem, in attempting to portray Lincoln as he really was, has exaggerated his physical peculiarities. For all this, however, he has given us a vivid portrait. Parliament has accepted the Barnard replica, so this is the statue that we may expect to see set up eventually in Parliament Square.

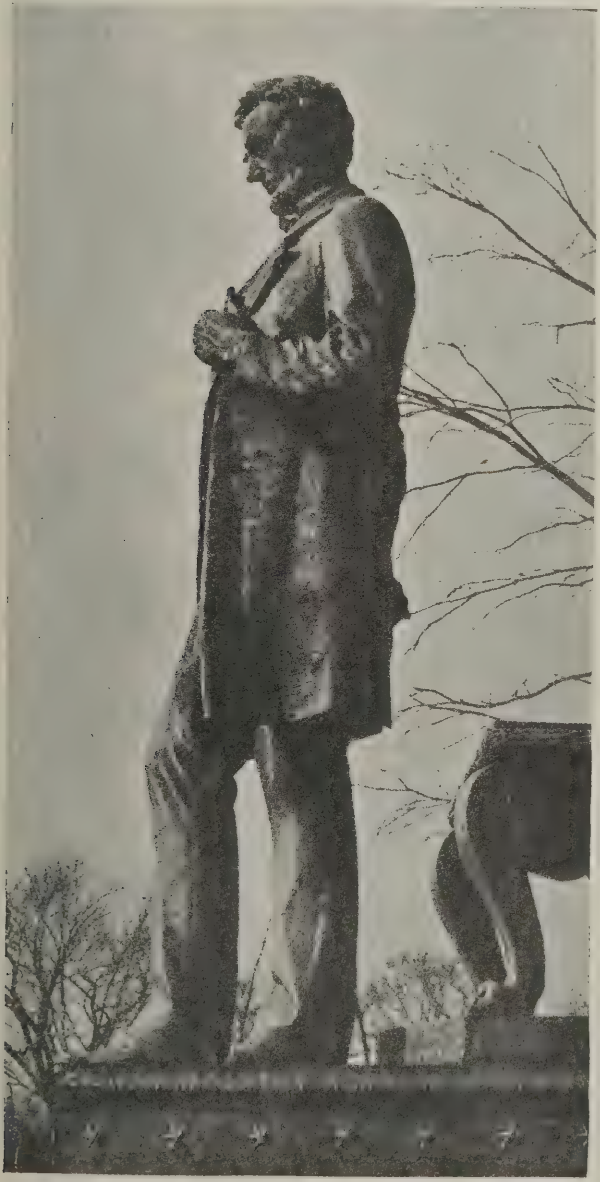


Photo: J. E. Yoreman.

By St. Gaudens.

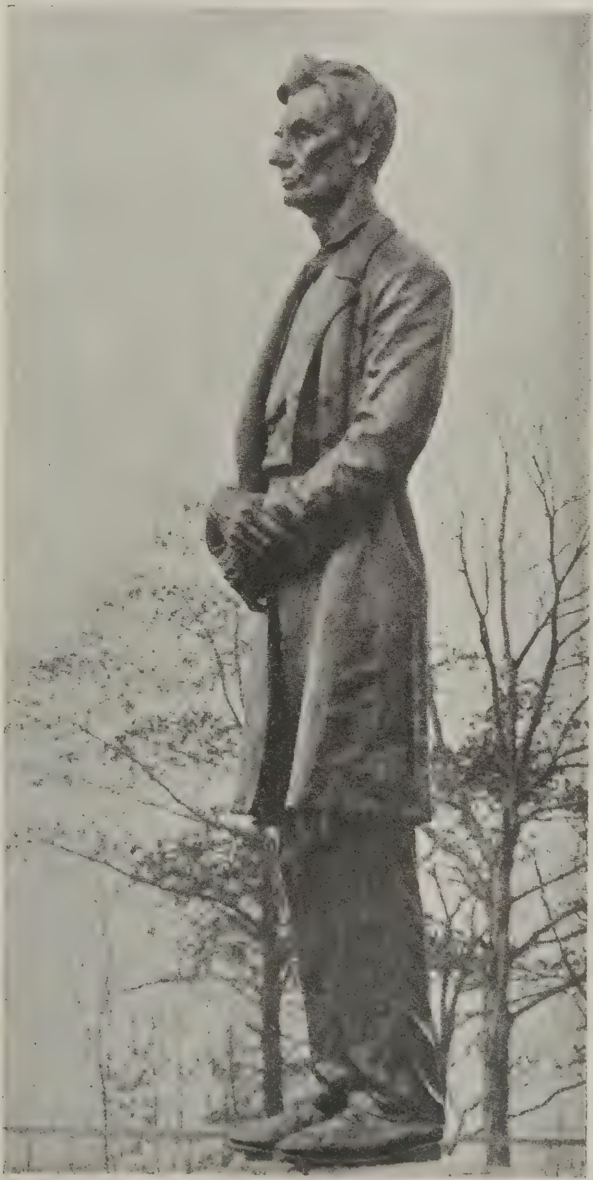


Photo: Perry Studi., New York.

By Barnard.

THE RIVAL LINCOLN STATUES.

CORRESPONDENCE.

The Institute and the Housing Competition.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Does it not seem a strange anomaly that the Institute, as representing the corporate life of architecture, permits, approves, and furthers competitions among its members? As long as this takes place the Society cannot be homogeneous, but only a conglomerate of members antagonistic one to another, tending to disintegrate and probably re-uniting as bodies in opposition. One cannot conceive Fellows of the R.C.P. publicly competing for a Doctorship to a great hospital by submitting prescriptions and demonstrating on patients before a lay selection committee advised by a Fellow; the general public invited to see the written applications, and view the demonstrations and criticise in the Press. Or, again, if a shipping company desires to extend its trading and docking facilities, it does not advertise to all and sundry its needs in the "Law Journal," and stating that it is proposed to pay premiums for the three best draft bills to lay before Parliament, and that all the other competitors will have the privilege of having their draft bills publicly exhibited with a view to other companies extracting such sub-clauses as they desire free of charge!

Look at this last competition sponsored by the Institute. Hundreds of qualified architects are designing little cottages for builders, land companies, quantity surveyors, and the public generally to utilise free of charge! Certainly a chosen few will receive monetary prizes, but they are given no guarantee that they will complete their schemes or carry out the works.

The "Daily Mail" and the "Country Life" housing competitions began the work of cheapening architects and domestic architecture by these competitions, but the Institute bids fair to give the coup de grâce, which will ultimately deprive architects of their means of subsistence.

Is it not time for the Institute to act in its corporate capacity, protect the profession, and assist its members to work in co-operation and not in opposition?

G. LL. MORRIS.

Swan Cottage, Ridge View Road, Whetstone, N.20.

SIRS,—I was interested to see Mr. Bowers's letter in last week's issue of your Journal in reference to the national housing competition.

As soon as the supplementary particulars were issued I wrote to the secretary of the R.I.B.A. in the terms of the letter a copy of which I enclose, and I only received the ambiguous reply that "Competitors are at liberty to arrange the designs on the sheets in any way they please," which was a simple reiteration of the paragraph No. 13 in supplementary particulars, and evidently no amendment, as no general notice was issued to competitors.

It would be interesting to learn who is responsible for drafting these particulars, and whether they had attempted what they ask competitors to do. In any case, it is exceedingly difficult to realise what they had in mind.

One naturally assumes the narrow frontage is for a southerly aspect, with the living-room in front, and the wide frontage ("one room deep only" being subsequently added) for a northerly aspect, with sunlight to the back of the living-room, while semi-detached houses could be designed for any aspect.

Competitors are asked to reconcile all these different possibilities in one design of one block in each class, which also has to apply to urban and rural districts.

Designs undoubtedly will be submitted, but what can be said of the assessing of them? Is it likely that one man will produce the three best types in one class? If not, is the average to be taken, which will possibly exclude the best? Or are the blocks to be dissected by the assessors, and bits selected for premiums?

Unfortunately there is no desperate need for haste in obtaining these designs, and, at any rate, a delay of a month or two would not affect the purpose they are intended to serve, and it would be well used in entirely remodelling Clause 13 of the supplementary particulars, which has met with much adverse criticism. If this is not done, I think one may be forgiven the thought that there is some obscure reason for foredooming the competition to failure.

S. B. RUSSELL.

[Copy.]

To the Secretary R.I.B.A.

Sir,—No. 13 of the Supplementary Particulars issued to competitors appears unlucky and ill-considered, for since alternatives are ruled out it limits the designs to one plan in each class and takes no account of aspect, which is of the greatest importance.

A house with a narrow frontage is necessarily of greater depth than one with a wide frontage, and as these would never be used together in a building scheme, the sole result is to dishearten competitors by crippling any sensible design.

The instruction precludes either showing a narrow frontage house as an end or semi-detached house, or, if this is done, prevents advantage being taken of treating the others in this way.

As the whole tendency of modern development is to get rid of the squeezed terrace house, it seems a pity that the scheme should be doomed to abortion by its arbitrary insertion between wider fronted houses.

I would suggest that the terrace class be treated separately and designs asked for this type for northerly and southerly aspects, and also that designs be submitted for both aspects in the other classes.

I do not think I am likely to be the only one to ask for re-consideration of this particular.

(Signed) S. B. RUSSELL.

1, Gray's Inn Square, W.C.1.

Sadler's Wells Theatre.

SIRS,—Sadler's Well Theatre is to let, and is likely to be turned to secular uses—an expression that will be easily excused by those old-fashioned folk in whose early days the building was commonly described as a "temple of Thespis." It gets its name from the discovery, in 1683, by a Mr. Sadler, a surveyor of the highways, of a chalybeate spring, whose healing virtues he knew how to puff in true quack-medicine-vendor style. Before the middle of the eighteenth century, the Wells had become a highly fashionable resort, and the thronging visitors had to be amused. About 1765, a Mr. Rosoman, a builder, pulled down the old wooden house that had served as pump-room and variety theatre, and put up a brick building, in which Grimaldi played, singing there his immortal lyric of "Hot Codlins." Here, too, T. P. Cooke created his famous character of William, in "Black-eyed Susan." But the theatre entered upon its most reputable period when, in 1844, Samuel Phelps appeared. Here, for eighteen years, he staged little else but the plays of Shakespeare, producing no fewer than thirty. He retired in 1862, after converting Sadler's Well Theatre from a rather rowdy character to that of an artistically respectable home of the legitimate drama. It is a quaint building, and one will feel sorry if it disappears; for it is an epitome of the history of entertainment from the date of its erection to the rise of the cinema. I suppose nothing can be done to preserve it as a memorial of Phelps; and it is without much hope that I suggest its use as a sort of theatrical museum.

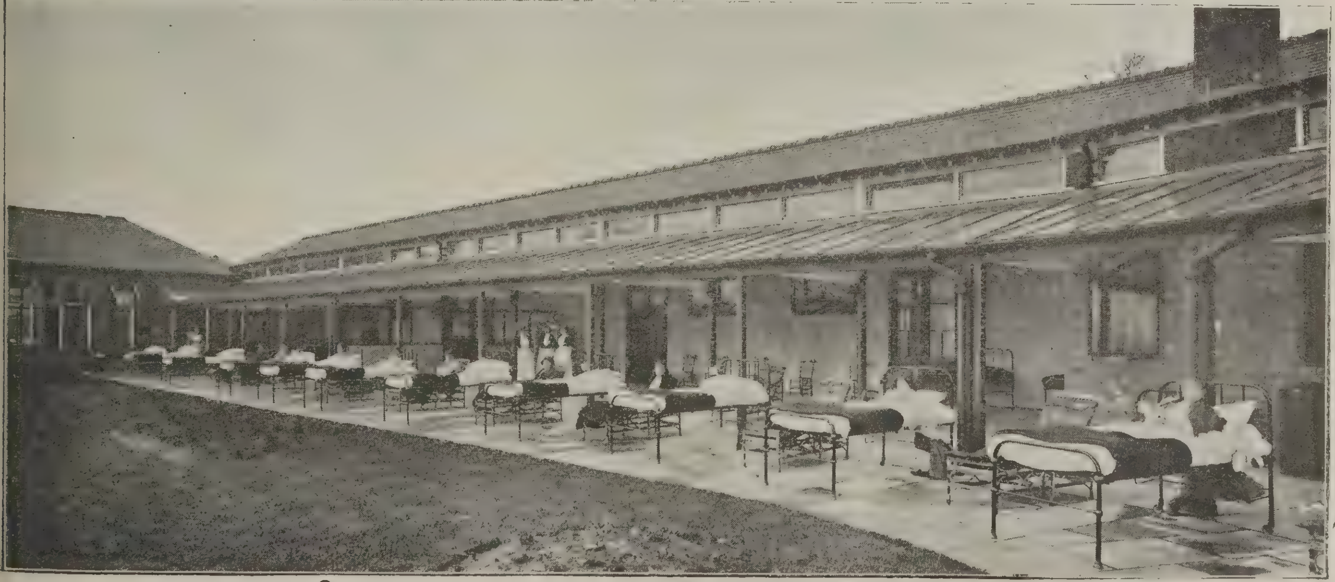
R. G. T.

BIRMINGHAM CITY SANATORIUM.

THIS Sanatorium, belonging to the Corporation of Birmingham, is situated n Yardley Road, Small Heath, and comprises the old small-pox hospital buildngs, which were converted to their present use in 1910. The Sanatorium has ecently been considerably developed and he site enlarged from 5½ to 33 acres, with accommodation for 220 patients. The new buildings consist of an administrative block, containing a kitchen for the whole nstitution, stores, quarters for doctor and nurses' home, a new open-air pavilion or sixty-four women, with central dining-hall, a pavilion for forty-four children, observation block for ten children, laundry with modern equipment, and boiler house. The pavilions are on the deep open verandah principle, with dressing-rooms, bath and sanitary conveniences at the back of the verandahs. The children's observation block is on the compartment principle, with glazed divisions, central duty-room, and offices.

The following particulars and details of construction and equipment have been kindly supplied by the architects, Messrs. "W. H. Ward," of Birmingham:—

Administrative Block: Brickwork, Birmingham common wire cut; selected facings; pressed silts, heads, and strings. Roofs, slated. Flats, vulcanite. Verandahs and roof lights, patent glazing. Interior walls, plastered and distempered, with exception of kitchens and sculleries, which are faced with seconds glazed bricks (green dado, white above). Floors: rooms, 1⅛-in. tongued and grooved boards; kitchen, sculleries, and stores are granolithic; corridors, bath-rooms, and w.c.s, 9-in. black and white tiles laid diagonally. Staircases, both main and fire escape, are of patent stone. Woodwork, stained and varnished interior; exterior painted. Cooking, 72-in. range, gas roaster and griller, vegetable and fish steamers, two boiling pans, 60 gallons each, tea infuser, hot plates in kitchen



CITY SANATORIUM, YARDLEY ROAD, BIRMINGHAM: BAY OF WOMEN'S PAVILION.

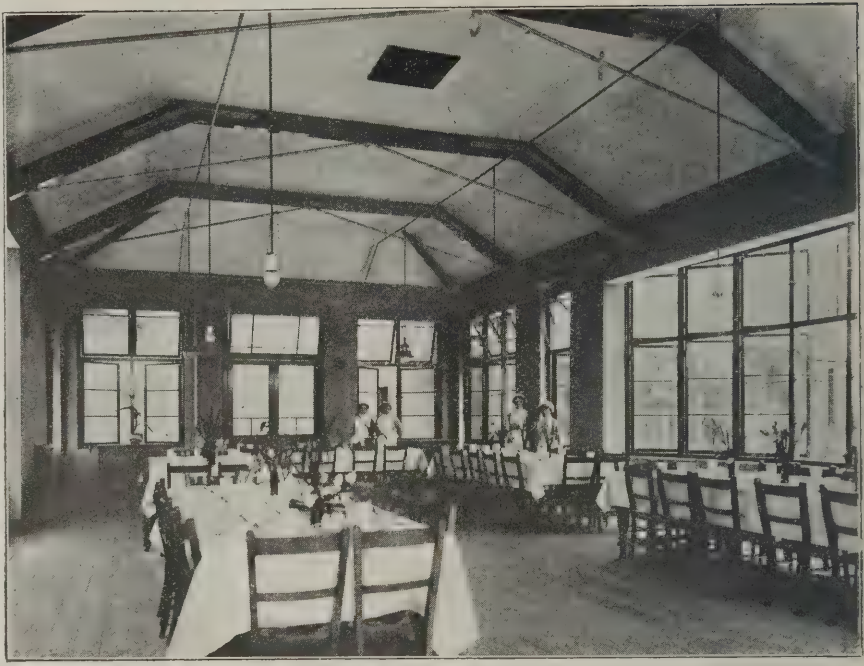
"W. H. WARD." ARCHITECTS.

and serving rooms to nurses' and doctors' rooms, hot-water boiler, cook's sink, vegetable boiler and sinks, and wash-up sinks. Stores, fitted shelves, drawers, tables, and metal-lined bins. Baths, vitreous-enamelled iron. Lavatory basins and w.c.s, white enamelled fireclay.

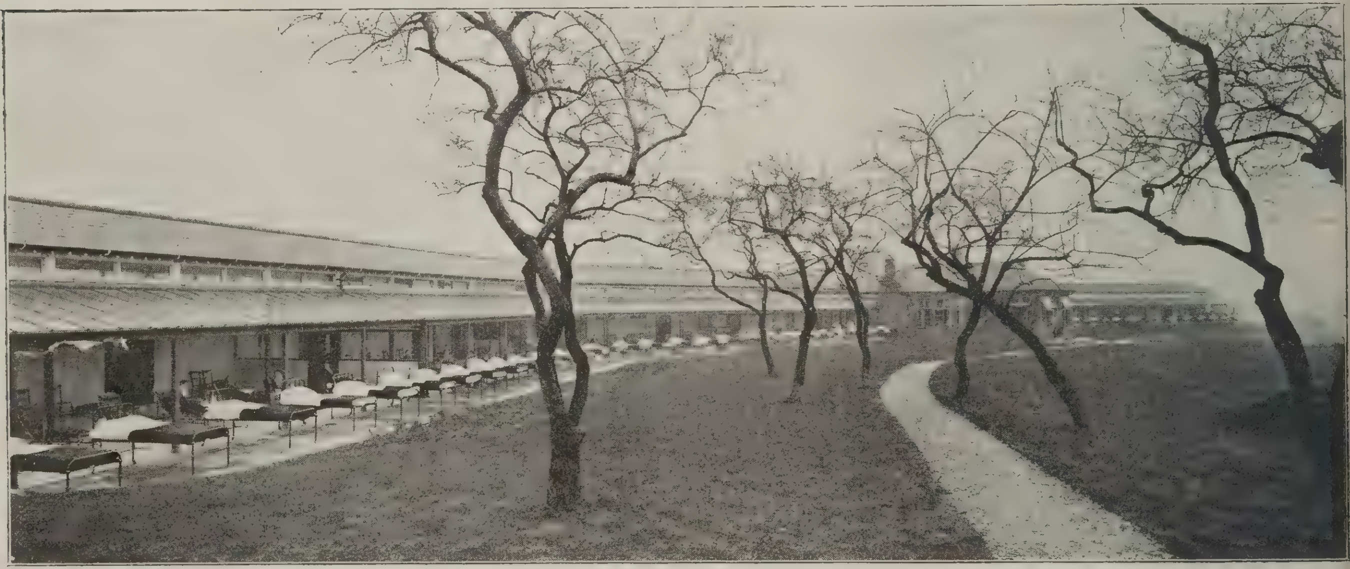
Female and Children's Pavilions.—Structure as administrative block, but floors of duty-rooms only of wood, rest granolithic, with 6-ft. patent stone-slabbed walk in front: duty-rooms fitted with steriliser and sink in sink-rooms; hot and cold water. Baths, white vitreous-enamelled slipper baths as for administrative block for adults; white enamelled fireclay, 3 ft. square, 1 ft. deep, and 1 ft. 3 in. from top to floor, with shower hot and cold and taps hot and cold for children; water controlled by nurse. Lavatory basins and w.c.s as administrative block, but with hardwood inserter rims to w.c.s.

Children's Observation Block.—Structure as above, but all rooms single-bedded, with glass divisions enabling nurse to see all patients from duty-room. Baths, one slipper and one portable.

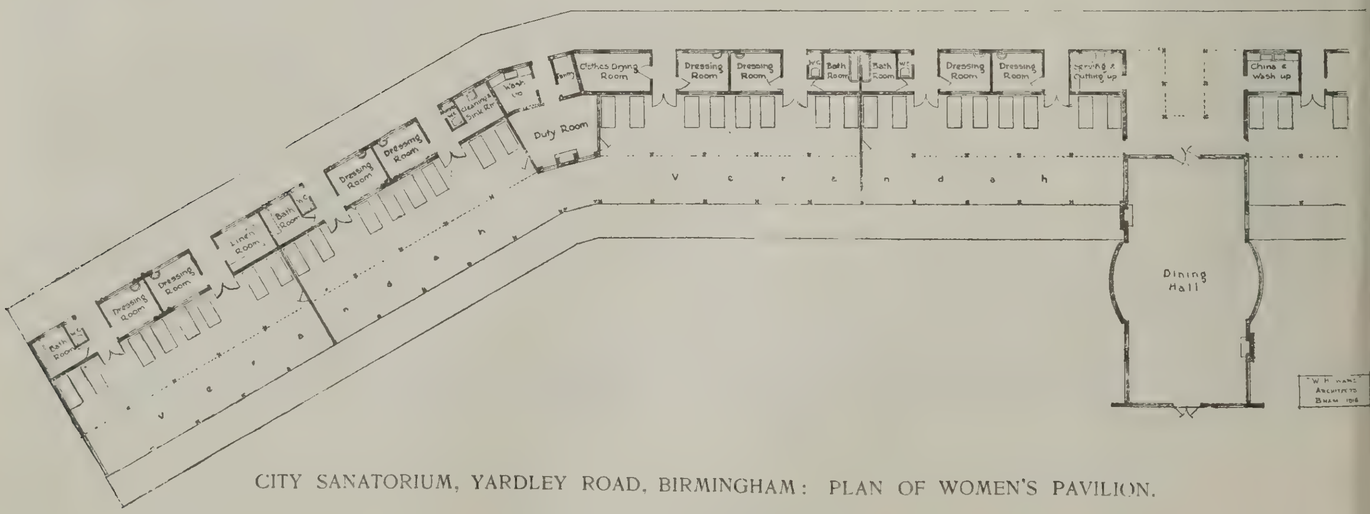
Disinfecting and Laundry.—Structure as before. Interior and walls, receiving, delivery, and washing, seconds glazed brick (green dado, white above); ironing-



Dining Hall in Women's Pavilion.



Front of Women's Pavilion.



CITY SANATORIUM, YARDLEY ROAD, BIRMINGHAM: PLAN OF WOMEN'S PAVILION.

"W. H. WARD," ARCHITECTS

room, dado only glazed; above, selected common bricks distempered white; infected, disinfected, and engine-room, selected common, lime-whited. Machinery, Washington-Lyon disinfector, wood racks to receiving and delivery, with loose trays in latter for nurses and the several blocks; two 120-shirt washing machines, one 36-in. hydro, one flannel washer, one rinsing and blueing machine, range of hand wash-troughs, 13 draw-out drying and airing horses, with fan and heater for expelling saturated air and heating fresh, blanket and flannel drying oven, six gas irons, range of ironing board, two skirt boards, one steeping tank, one 80-shirt washer, one 30-in. hydro for foul washing, one 8 b.h.p. steam engine.

Boiler House and Stack.—Structure as administrative block, two 26-ft. Lancashire boilers, using all condensed water made, coal store for domestic and steam coal, engineers' shop, stack (80 ft. high), octagonal, and provided with separate fire-clay lining.

Drainage.—Sewage: All connections from sinks, w.c.s, baths, lavatory basins run direct into inspection chambers, however short in length. There are no junctions anywhere. Cane-glazed splits, etc., in i.c.s and i.c.s salt-glazed bricks. Main outfall into Corporation sewer. Rain water: Entirely separate from sewage, at present running into a ditch, but it is proposed in the future to build storage tanks and use the water for the laundry.

Lighting.—Gas, with inverted incandescent burners. Gas was adopted against the advice of the architects, who consider electric light best for sanatoria.

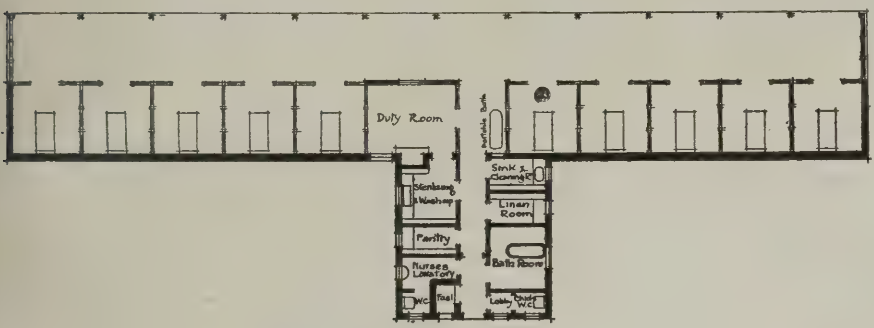
Heating.—Hot water radiators in administrative block only, from calorifiers.

Hot Water Supply.—From calorifiers, steam being carried to blocks in trenches. All condense in ditto to boilers. Calorifiers used for clothes drying.

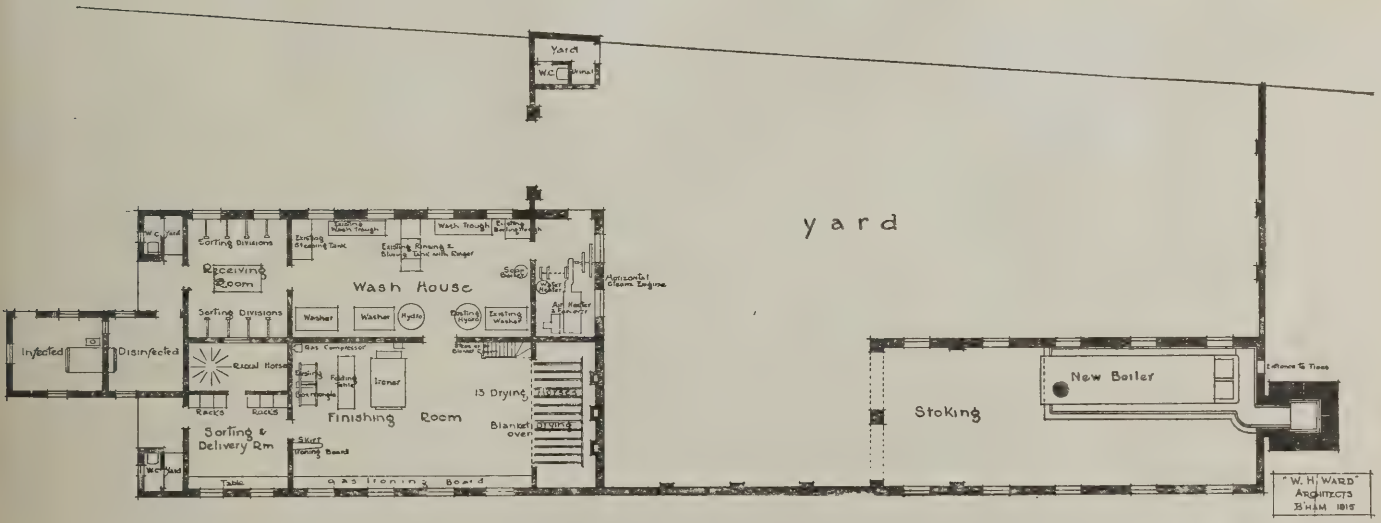
Cold Water Supply.—Corporation main, large tank in roof of administrative block.

Fire Hydrants.—Corporation high-pressure main.

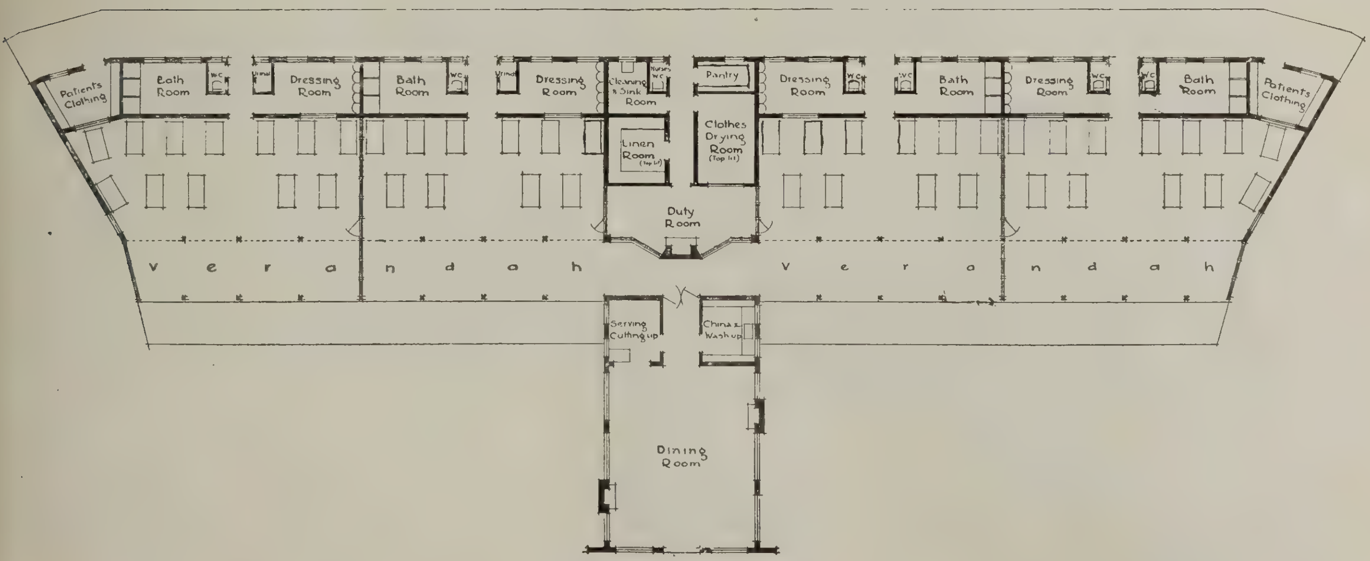
Roadways.—All blocks are connected by patent stone-flagged pathway 6 ft. wide, to enable food trolleys to be run easily and to provide a dry walking place for patients and nurses. Steam and condenser mains run under this and keep it still drier.



Plan of Children's Observation Block.



Plan of Laundry and Boiler House.



Plan of Children's Pavilions.

CITY SANATORIUM, YARDLEY ROAD, BIRMINGHAM. "W. H. WARD," ARCHITECTS.

R.I.B.A. EXAMINATIONS.

THE FINAL: ALTERNATIVE PROBLEMS IN DESIGN.

Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9, Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, and his full name and address, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

Subject XXXVII.

(a) A War Memorial. The site is an old garden at a point in a town where two roads converge. It is 150 ft. on each side, 100 ft. at the rear, and 20 ft. in front. There are two cedar trees at 20 ft. each from the rear and side boundaries.

The scheme is to comprise one main monument and subsidiary memorials to individuals or particular units, standing in the open or in loggias or recesses. All decoration should be appropriate to a memorial commemorating sailors, soldiers, doctors, and nurses, airmen and others who have taken an active part in the war. The names of various battles should appear.

Plan 8 ft. to an inch. Longitudinal section to 8 ft. to an inch, a drawing of the chief monument and of one or two smaller ones to ½-in. scale. Slight indications only of sculptural work are required. Except as regards the site, the above particulars may be considered merely as suggestions, the intention being to put a good scheme before a committee who have only considered the matter broadly.

(b) A Refreshment Room in a Public Park. A site 100 ft. square is available. It is approached from the east by one of the main avenues, and there is a good view towards the south. A Central Hall with bar and kitchen offices is to be provided also retiring rooms for men, women, and staff. Ample verandahs are also required.

Drawings.—Ground plan, section, and elevation ⅛-in. scale, and a detail to ½-in. scale.

Subject XXXVIII.

(a) A Crafts Museum to cover a site 6,000 ft. in area, having a main street in front and a minor street on each side; the usual cloak-rooms, curator's-room, etc., to be provided; the galleries to be suitable for exhibiting parts of rooms, furniture, and utensils, and the processes by which these are made. The building to have two floors and the upper floor top-lit.

Drawings.—Plans and one or two elevations to ⅛-in. scale, section of a portion showing a gallery roof to ½-in. scale.

(b) A Detached Villa facing a public thoroughfare in a provincial town. Accommodation required, three reception-rooms, five bedrooms, and usual offices. Non-basement house. Site, 70 ft. frontage and 200 ft. depth.

Drawings.—Block plan to 1-16 ft. scale, two plans, front elevation, and one section to ¼-in. scale, with entrance bay to 1-in. scale.

Subject XXXIX.

(a) Board Room to a Bank on first floor. Size of room, 25 ft. square, with directors' retiring room and lavatories in addition, also staircase. The building has a frontage of 28 ft.

Drawings.—One plan of whole of first floor; plan of ceiling of board room and section all to ½-in. scale. Scheme of colour decoration to be shown.

(b) A Street Viaduct. Municipal improvements necessitate the carrying of a new street, over an existing old street at a lower level.

The new street is 120 ft. wide and the old one 60 ft. wide. The new street is 30 ft. above the old one, which is crosses at right angles.

The viaduct is to have a monumental character in keeping with the important street which it carries.

The lower street, which has a carriageway and footpaths, may be spanned by one or three arches, and adequate abutments will be necessary to sustain the thrusts.

The buildings each side are also to be rebuilt 80 ft. in height above the new street level, and are to be shown sufficiently to explain their connection with the design.

Means of communication between the different levels are to be provided at both sides of the new roadway, also a subway to form a safe crossing.

The materials are optional.

Drawings.—¼-in. scale elevation and sketch plans 1-16-in. scale.

Dates for Submission of Designs in 1918.

	Subject xxxvii.	Subject xxxviii.	Subject xxxix,
United Kingdom	28th Feb.	30th April	30th June
Johannesburg ...	30th April	30th June	31st Aug.
Melbourne ...	31st May	31st July	30th Sept.
Sydney	31st May	31st July	30th Sept.
Toronto	31st March	31st May	31st July

GOVERNMENT USE OF PUBLIC MUSEUMS.

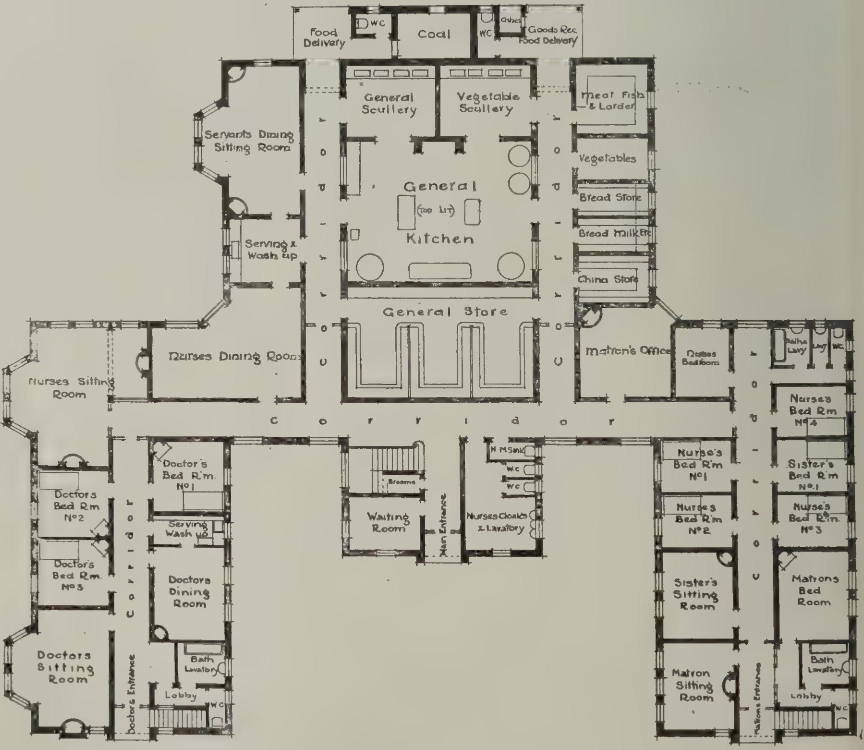
No active preparations are afoot for the taking over of the British Museum by the Office of Works for the use of the Air Council. The matter is said to be still under consideration.

The Natural History Museum at South Kensington is an annexe of the British Museum, and a portion of it is already occupied by the staff of the National Registry of Friendly Societies. Intimation has been received from the Office of Works that the Government desire to take over the building at once for use by the Registry. It is estimated that the removal of the museum priceless collections would take twelve months. Protests have been received from many natural history societies.

It is understood, according to the "Daily Telegraph," that no alteration has been made in the arrangements of the Government with regard to South Kensington Museum. Many of the art treasures have been removed to places of safety, and the space thus secured has been utilised for public purposes. Parts, for instance, have been used by the Board of Education, and other apartments may be utilised as occasion requires.

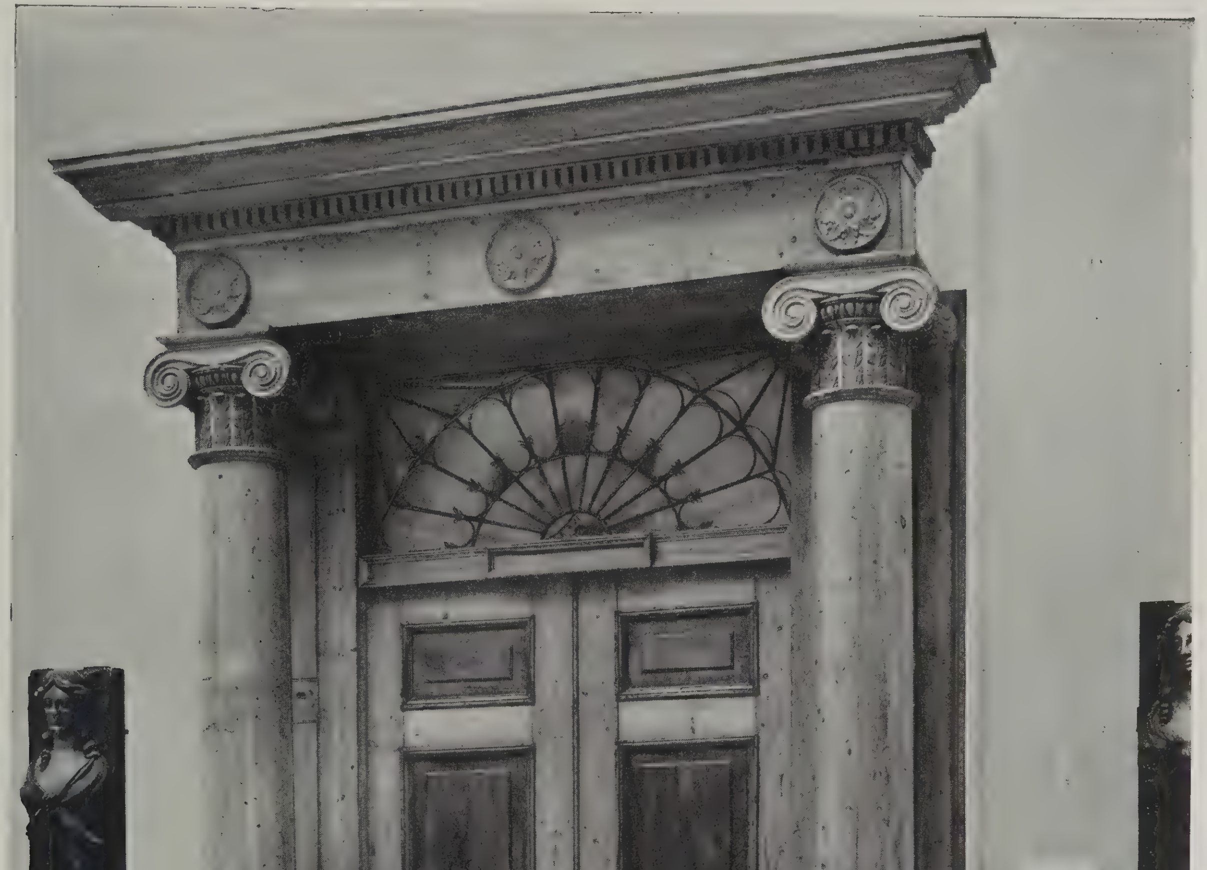
The Lord Mayor of London has declined to join in a public protest against the use of the British Museum. "This I do suggest," he said, "that the Government should very carefully consider whether is absolutely necessary for the sake of measures necessary to the successful prosecution of the campaign. Subject to that, I say we are bound cheerfully to make any sacrifice which may be required of us in the interests of the State."

It is learnt that the Wellington Club, Grosvenor Place, has been commandeered by the Government, who have now entered into possession. The Wellington is one of the large social clubs of the West End, having a membership of over 1,400.



CITY SANATORIUM, YARDLEY ROAD, BIRMINGHAM: PLAN OF ADMINISTRATIVE BLOCK.

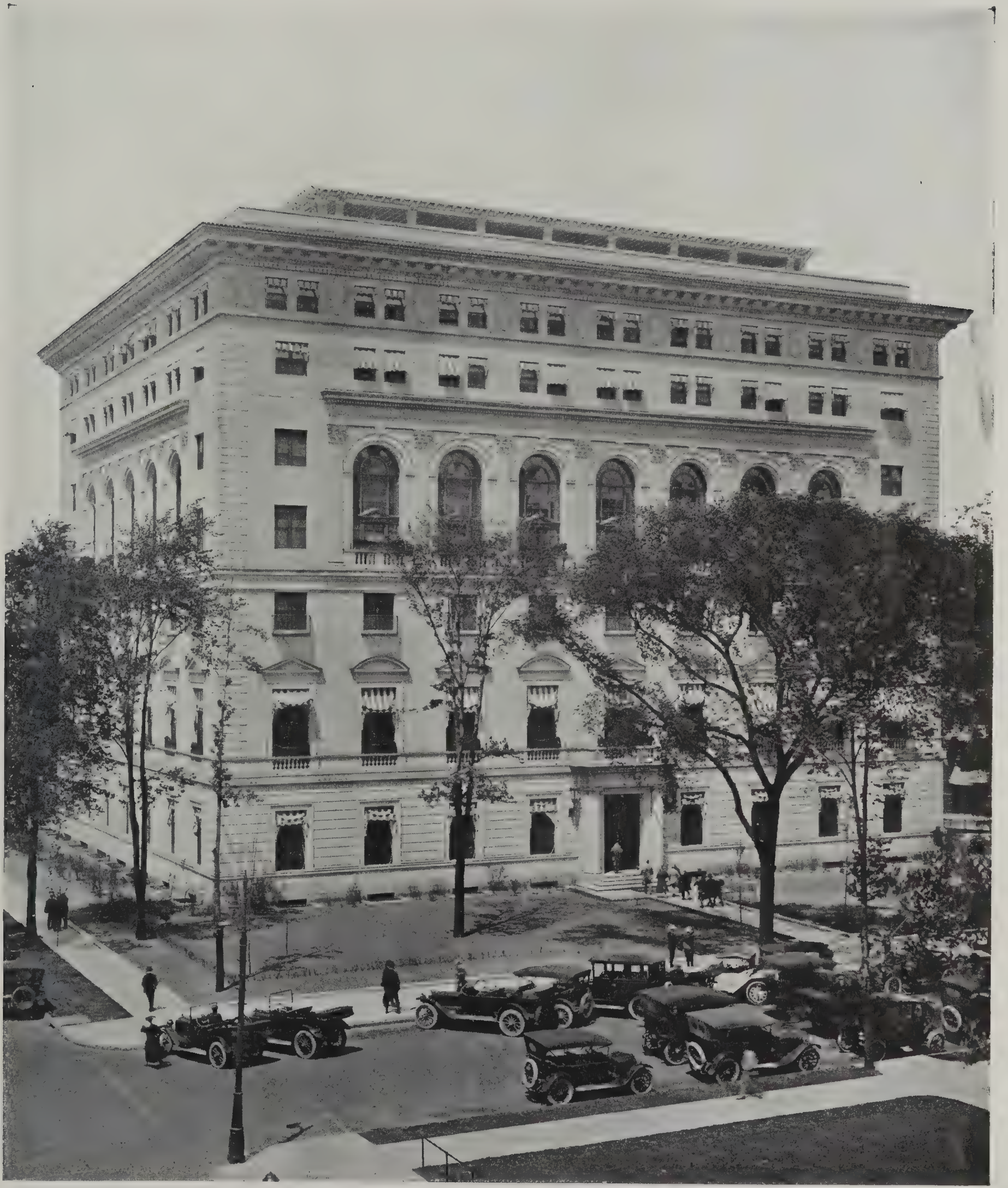
"W. H. WARD," ARCHITECTS.



DOORS AND DOORWAYS. XVIII.—FROM No. 35, GREAT GEORGE STREET, WESTMINSTER.

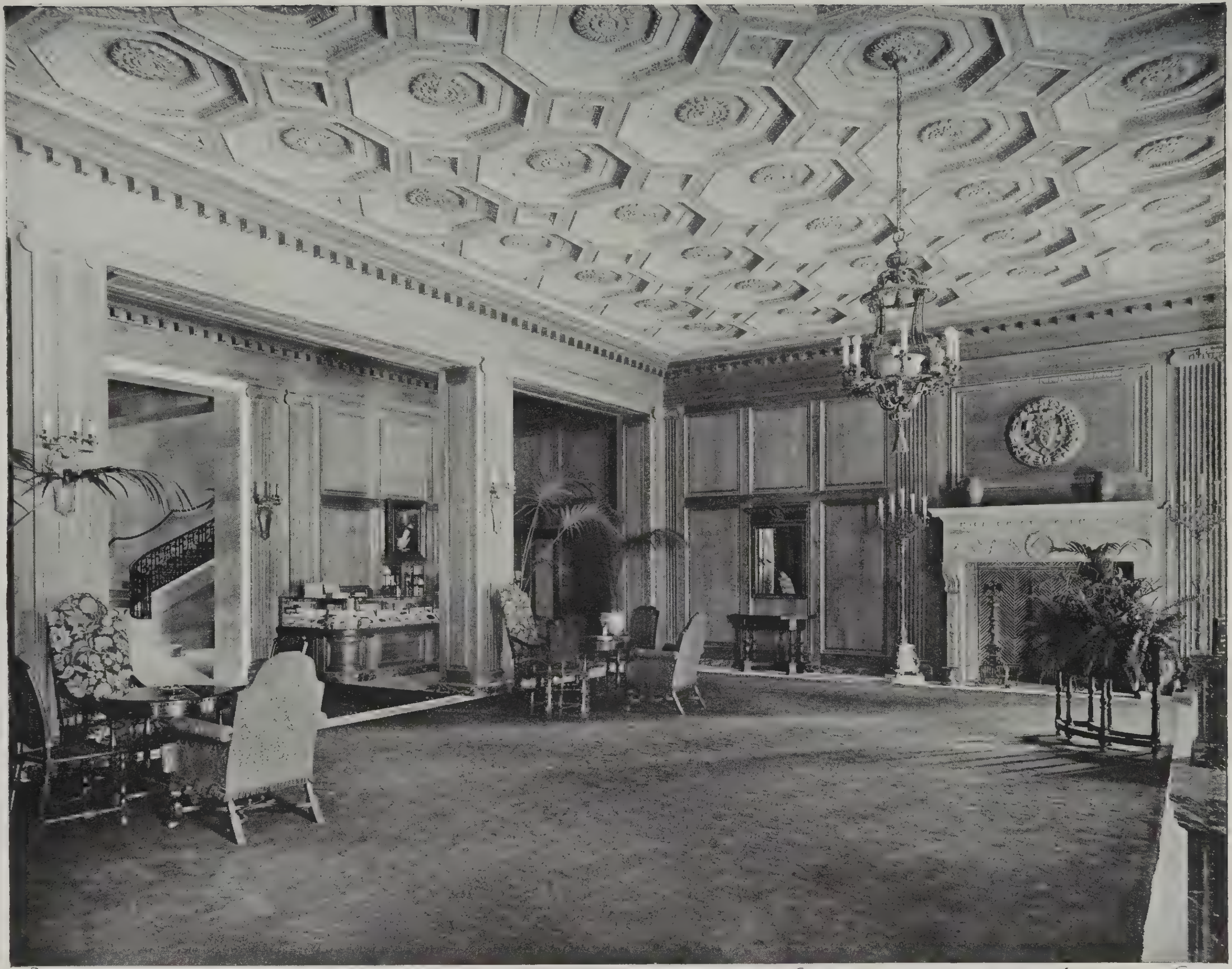
(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

UNIVERSITY OF ILLINOIS



MODERN AMERICAN ARCHITECTURE (SERIES II.). XLVII.—DETROIT ATHLETIC CLUB, DETROIT, MICHIGAN.

ALBERT KAHN, ARCHITECT, ASSOCIATED WITH ERNEST WILBY.



MODERN AMERICAN ARCHITECTURE (SERIES II.). XLVIII.—DETROIT ATHLETIC CLUB, DETROIT, MICHIGAN: ENTRANCE HALL.

ALBERT KAHN, ARCHITECT, ASSOCIATED WITH ERNEST WILBY.

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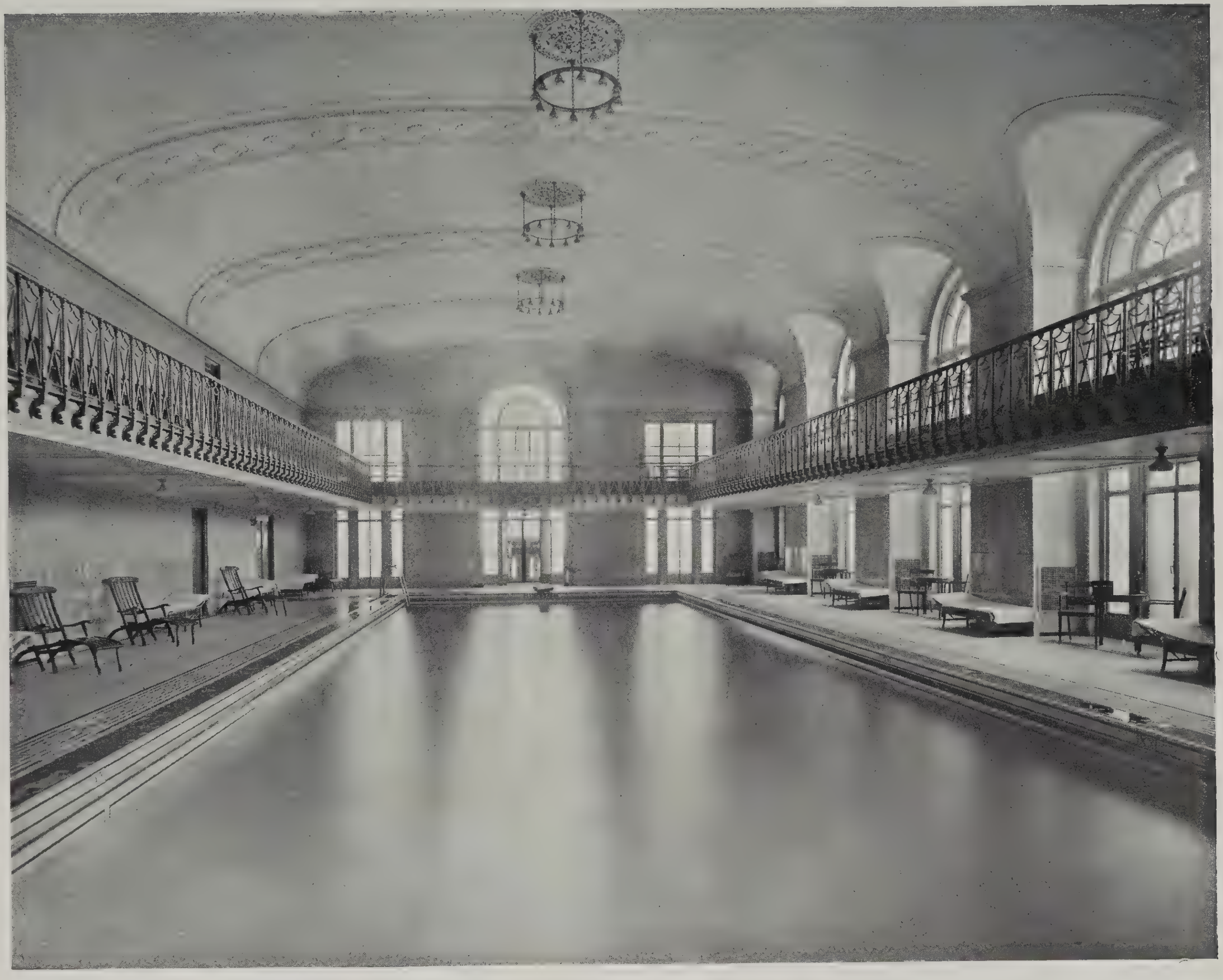

MODERN AMERICAN ARCHITECTURE (SERIES II.). XLIX.—DETROIT ATHLETIC CLUB, DETROIT, MICHIGAN: SWIMMING BATH

ALBERT KAHN, ARCHITECT, ASSOCIATED WITH ERNEST WILBY.

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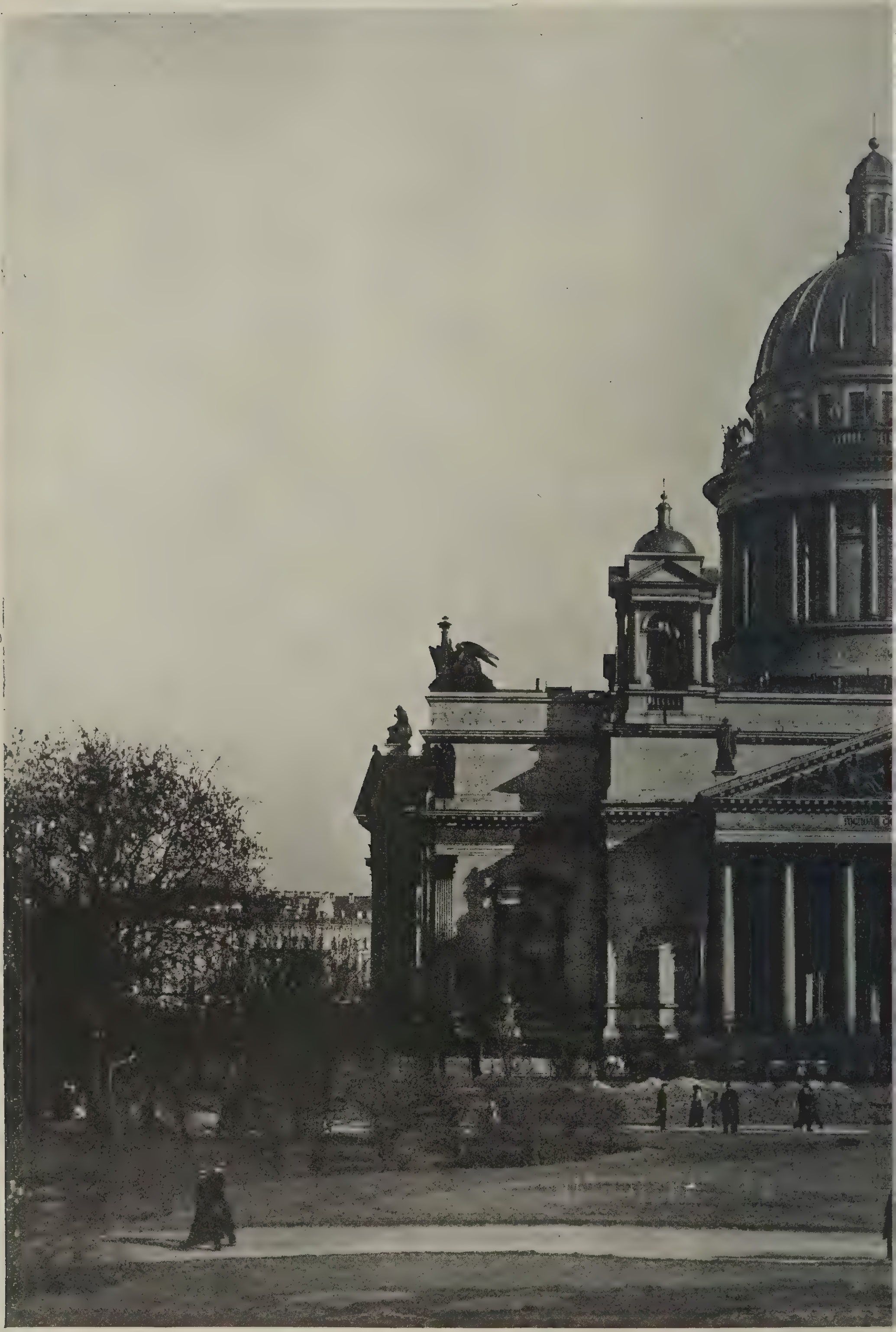
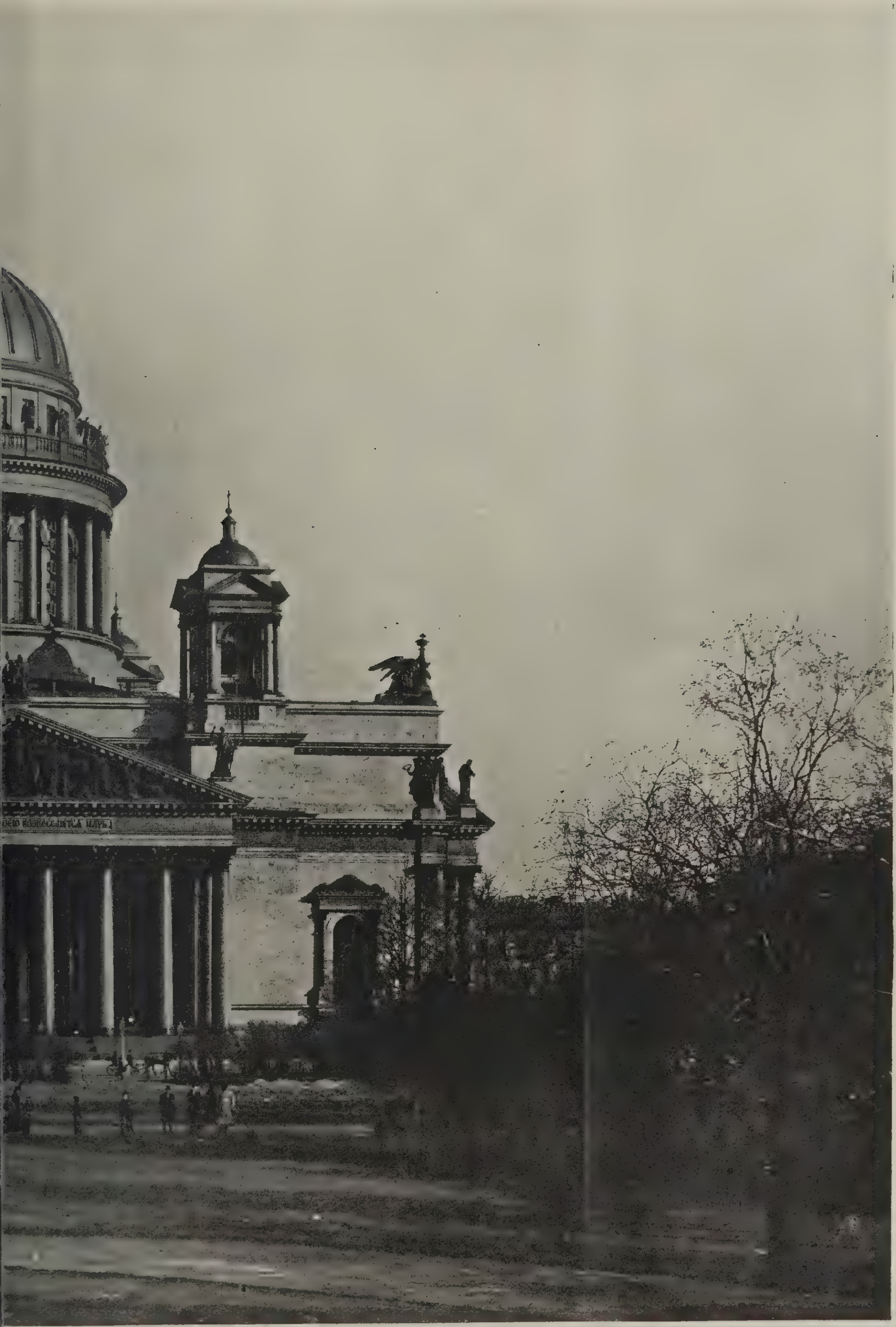


MONUMENTAL ARCHITECTURE (SERIES II.).

COMTE MONFI



XVI.—CATHEDRAL OF ST. ISAAC, PETROGRAD.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

JANUARY 16, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1202.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause a wastage of effort and materials that could obviously be reduced to a minimum but for casual and erratic purchasing.

EARL CURZON'S announcement, in the House of Lords last Wednesday, that the British Museum is not to be taken over by the Air Ministry came as a real relief. Rejoicings, however, were tempered by the feeling that the mere proposal to turn the Museum to such uses was in itself sufficiently scandalous, independently of the upshot. That responsible members of the Government should have seriously contemplated such an outrage is an alarming symptom either of a remarkable want of resourcefulness or of an equally lamentable lack of a sense of value and proportion. Fortunately they have been overwhelmed by the very hearty outburst of indignation that followed promptly on the announcement of their intention, and one is ready to give them plenary absolution as a reward for having (although unintentionally) provoked such a reassuring demonstration that the war has not reduced us to the extremity of throwing everything into the vortex. In the last resort, the nation is prepared to do and to suffer to the utmost, but, since we are fighting for high ideals, we should, in mere consistency, cherish very jealously—even religiously—the related symbols of those ideals. A national collection of antiquities and art treasures being the visible evidence of veneration for civilising influences, any seeming slight to the national shrine containing them would have looked like a lapse into apostasy. It would have weakened our protests against the destruction of Louvain—not because the cases are really comparable, but because the enemy would have pretended to infer the measure of our veneration by our action in converting the Museum to military uses. It is the spirit of the thing that counts, and that is why we do not care to say much on the material side of the protest. It was reasonable to suppose that the transformation of the Museum into military offices would almost inevitably involve irreparable injury to priceless treasures; but the moral damage the country would have suffered in consenting to the project would have been infinitely greater, and the storm of protest is a healthy sign, more especially because not only the entire Press, the Society for the Promotion of Hellenic Studies, and the Three Arts Club took part in it, but because the Parliamentary Committees of the Labour Party and the Trades Union Congress seized this occasion to show that the democracy have ceased to be indifferent in such matters.

A remarkably thin argument in favour of taking over the British Museum for military occupation was that the building, having been closed to the public, was doing no service! That is equivalent to saying that one sin is the legitimate offspring of another—that a rotten foundation justifies an ugly superstructure. When the British Museum was closed to the public, the excuse was that this course was necessary to protect the contents from alien and other enemy bombs, and Press and public accepted the situation with very little grumbling, but the further step (we do not suppose that it was a premeditated development of the first) was too much for a country that was ignorantly assumed to be as indifferent to art as, with a few honourable exceptions, politicians have by this action proved themselves to be. It is only fair to take note of the exceptions; for it is highly probable that but for the intervention of men of taste—Lord Curzon, for instance—within the inmost ring, protest from without might have failed to prevent a blunder that would have given the enemy occasion to blaspheme, and, what would have been infinitely worse, would have lowered us in the eyes of our friends and Allies, and would have set the lieges a shocking example of irreverence. And where would the line have been drawn? Someone has sarcastically suggested that if the British Museum had gone, we should tremble for the immunity of St. Paul's and the Abbey!

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A glance at the annual report of the Society of Architects is sufficient to show that this Society, like so many others, is working even more strenuously in war-time than it did under peace conditions. It took part, we are reminded, in the deputation of architects which waited on Mr. Neville Chamberlain with the object of securing a definite place for architects in the scheme of national service, and it is represented on the Architects' Advisory Committee which was subsequently formed, and on a joint Professional Employment Committee. It has placed the Society's premises, together with the services of the clerical staff, freely at the disposal of the Beaux-Arts Committee and of the Professional Employment and Reorganisation Committees of the Architects' War Committee. It is represented also on half a dozen other usefully active bodies, including the Belgian Town Planning Committee, the Joint Conference on Civic Surveys, and the National Housing and Town Planning Council and Conference. It is conducting British Prisoners of War Book and Examination Schemes, and has formed a special committee to deal with the many problems arising out of the housing movement. This committee will endeavour to secure the employment of competent architects on housing and town-planning schemes, a matter that will certainly require most close and earnest attention, if the bad old tradition of dispensing with the architect is to be broken. Further, the Society is continuing vigorously its promotion of scientific research, and has submitted a scheme to the Government Department charged with such duties. Also, sub-committees of the Society have under consideration schemes relating to research in such subjects as ventilation, heating, and acoustics; while schemes for the development of the Society's examinations, more particularly in relation to architectural design, are being formulated and scrutinised. A comparative table of some of the principal items of income and expenditure shows that at the end of the third year of working under war conditions, while the total income has decreased by £579, the total expenditure has been reduced by £921, the most marked decrease in expenditure being in household expenses, postages, printing and stationery.

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Messrs. Everard, Son, and Pick, whose work we have frequently had the pleasure of illustrating, send a courteous word of remonstrance against our observations on building with brickwork when the structure is to be merely temporary. They convey the impression that in their opinion brickwork cannot be excelled for quick building. We are sorry to disagree with them. For brickwork we have the most profound respect, but, under the conditions to which we made specific reference, we should certainly not class it among the materials of rapid construction. Given a large army of hustling piece-paid workers, filling up at reckless speed steel framework, as they do in America, brickwork no doubt qualifies for the category; but our native bricklayers, being paid by the hour, are more leisurely in their movements, and, for the moment, are extremely scarce. To do them justice, their work is unrivalled for quality, but that is a point that does not come into the particular question at issue. In a footnote to Messrs. Everard, Son, and Pick's letter, we have explained our reasons for questioning the choice of brickwork for temporary buildings in St. James's Park, and need only reiterate here our opinion that materials more suitable to the conditions could have been adopted, with considerable advantage in several respects—notably in the dry finish that renders fit for immediate occupation buildings constructed of the newer materials; whereas, especially in winter, brickwork takes a considerable time to dry out. As it is very far from our wish to dogmatise on the subject, we should be glad if other architects would communicate their experiences of rapid construction.

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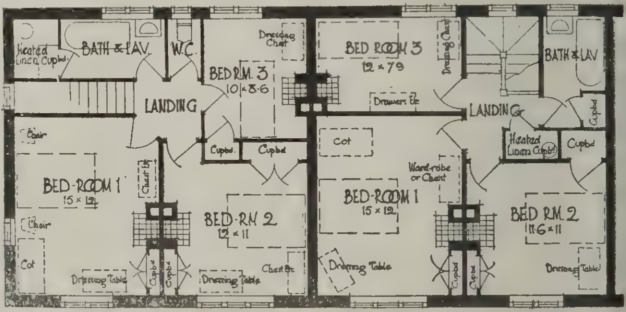
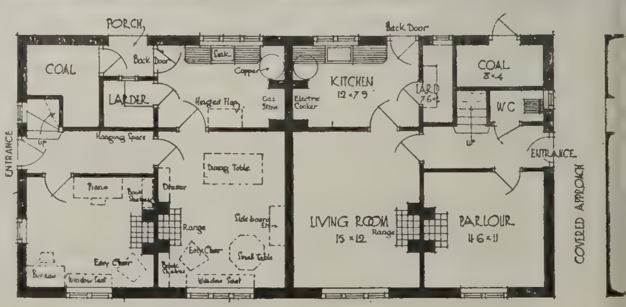
As a matter of course, all the members of our staff who are of service age are with His Majesty's Forces. Communications happening to arrive simultaneously from two of them, it occurs to us that many of our readers may like to share our pleasure in learning that these two gentlemen are "very well, thank you." Mr. R. Randal Phillips, who, as "Ubique," delighted us week by week with his nimble wit and genial satire, and the fruits of whose hobby as an architectural photographer have so often enriched our pages, is serving in the Royal Engineers with the boundless energy and extraordinary versatility that made him an invaluable member of our staff; and Mr. A. Trystan Edwards, M.A., whose brilliant contributions to the Journal placed him at a bound among the foremost writers on architecture, is now strangely disguised as "Able Seaman Arthur T. Edwards"—his designation, like his attire, having "suffered a sea change." Edwards is evidently proud of it (and we are certainly very proud of him, and of all our other gallant boys, one of whom, having been a crack shot when in the Volunteers, gained extraordinarily rapid promotion in the Army, and soon became a sergeant-instructor in musketry); for he—Able Seaman A. T. Edwards—writes quite seriously, "I am thoroughly happy in the Navy, and shall shed tears when I have to leave it." 'Tis a way they have in the Navy, and explains why the sea is salt. Benedictions on all the brave lads, whether they be serving on land or at sea!

WOMEN AND HOUSE PLANNING.

BY the courtesy of the Women's Labour League we reproduce here, from a special leafle issued by the League (1, Victoria Stree S.W.1), the ground-floor and first-floor plans of tw houses. It is explained, rather naïvely, that "i order to fit into the pages [of the leaflet—our reproductions are much smaller], the scale of the pla of the ground-floor is slightly smaller than that c the first-floor, but the size of the house would b just the same in both." We quote the further explanation that "These houses would be placed i blocks of four, with a small space of grass in front The groups might be arranged in many ways— round quadrangles, in tree-planted streets, etc Between each set of two houses would be a covere approach, and over this a sleeping-out balcon (especially valuable for delicate or tubercula people) could be arranged. The garden would b at the back. Hot and cold water would be laid o for sink, lavatory basin, and bath. Please not that the arrangements of w.c., coal cellar, an larder are different in the two houses. Which d you prefer? In one plan furniture and fittings ar fully shown. The coal range is placed in the living room. Do you prefer it in the kitchen? Electri light would be installed, if possible. Would yo like a vacuum cleaner?" Certainly the publicatio of these plans gives what should be a practical tur to the vexed question of house-planning, an answers the common charge that women complai incessantly, but never suggest practicable improvements. Unfortunately, however, very few wome —or men either, for that matter—are able to rea a plan with anything like an intelligent appreciatio of how it would work out in three dimensions. Personally, we cannot say that we greatly admire thes plans, which, however, are not offered as model of perfection (the description in the introductor part of the leaflet as "an ideal house for a family o six" should not be taken too trustfully), but merel as a basis for suggestion; for the leaflet ends with series of eighteen questions, many of which relat to details of planning or arrangement. It is to b hoped that the answers to this set of question will be sufficiently numerous, and representativ enough, to give a fair view of what "the home maker" really wants in the way of planning. U to now she has been vague, variable, mutable, i this matter. Now she has a splendid chance to becom quite definite.





HERE AND THERE.

LIFE being, as the humorous picture postcard puts it, "one thing after another" (I omit a rather lurid adjective), and authorship consisting, as a formalist has remarked, of "the progressive development of B from A and C from B and so forth," I find myself following up, without any very deliberate intention, a casual remark I made a week ago on the subject of illustrations. A friend has remonstrated with me on a supposed slight put upon what he calls "the noble art of wood-engraving," for which he considers "mechanical engraving" to be "a very poor substitute, to be classed with all the other soul-deadening sophistications of art." I did not belittle or dispraise wood-engraving. On this side of idolatry, I love it as well as any man—when it is good; but "when it's bad it's horrid."

* * * *

There can be no question that wood-engraving at its best was an admirable art; but it had its drawbacks. If, as happened very rarely, the artist was his own engraver, he could not, at all events, complain of the engraver's misinterpretation of the drawing—or, rather, he would be apt to deal more leniently with the culprit. One often hears a man say that there are occasions when he "wants to go into a quiet corner and kick himself"; but it is to be assumed that he does it metaphorically—one never catches him in the physical act, and one is thus deprived of the opportunity to "tarre him on," or, in extreme cases, to assist in the operation. I once knew a very genial artist who was often vexed by the misdeeds of his favourite engraver, or whom he had always the same formula of rebuke—"Consider yourself kicked."

* * * *

It was inherent in wood-engraving that it offered so many opportunities for dispute as to the methods of ranslation. Few artists in black-and-white had ufficient knowledge of the technique to draw exactly he lines to be engraved. Much, especially in shading nd hatching, had to be left to the discretion of the ngraver. If he were a master of his art, he could mprove on the drawing; if he were but average, he ould easily ruin it—which, to do him justice, he commonly did. And the other difficulties of the medium were not easily surmounted by the artist. The block n which he had to draw was of an awkward thickness o handle, and he had to limn everything in reverse, on he French-chalked surface of the box-wood. Very ften this chalk ground was badly laid, or it flaked off nder too heavy a touch, or was refractory to the kiss f the pencil; putting the engraver fairly on his mettle o discriminate between intention and effect.

* * * *

Sometimes the artist forgot to reverse, and the ngraver failed to detect this want of foresight. Typical esults: two dames of high degree shaking hands with he nicest observance of the court etiquette of the eriod, except that they were doing it with their left ands; or two athletic and fiercely moustached gentlemen fighting a desperate left-handed duel; or a backard-running inscription on a book or a building. To void such misadventures, a careful and methodical rtist (there have been such freaks) would present his lock to a mirror, thus getting some idea of its ultimate ppearance. Even Sir John Gilbert, I have heard, ometimes forgot to reverse, notwithstanding his vast xperience of drawing on the wood. Probably he rew on thousands of blocks, and he commonly did ost of them in a hurry—"while you wait." A boy om the engraver's would bring him a blank block and wait while Sir John drew upon it. That explains why this masterly draughtsman never produced anything that was quite worthy of his talent. Wholesale production and high art are "scarce cater-cousins."

* * * *

Wood-engraving, I have always thought, never lent itself very kindly to the illustration of buildings. It gave them harsh, stiff, and altogether unnatural lines, and a false texture. Then the building was too much at the mercy of the artist. You got it, not as it actually was, but as the artist saw it. Sometimes he would take upon himself to put in something—a window, a chimney, or an extra step or two to a flight—that he thought the architect ought not to have omitted; or, conversely, he would omit something that he thought superfluous. Consciously or unconsciously, he would alter slightly the proportions of the building. I have even heard of an artist of strongly individual character who added a storey to a building that he thought too squat to make a pretty picture. Too much, in fact, depended on his temperament and the mood he happened to be in when he made the drawing, with the untoward result that you could always be more sure about the authorship of the drawing than about the identity of the architect. The camera substituted a new set of vices, but its temperament is negligible.

* * * *

The photo-mechanical process did not actually kill wood-engraving, but drove it to suicide. In a hopeless attempt to get up speed, the wood-engraver adopted certain labour-saving devices—for example, the spur-rowel-like roulette with which he saved much time and trouble in cutting, and produced results that were hideously mechanical. It was sad to see how debased, in its last days, had become the art that had begun to decline when Thomas Bewick died. For it has always seemed to me that Bewick got the "woodpeckers" into two minds about their art. There are two ways of forming the image on a wood-block. You may get it like the sculptor, by "cutting away what you don't want." In that way you cut the white to waste, and depend upon black lines for the formation of the image. Or, following Thomas Bewick, you may shape your image by making a positive use of white lines, keeping the black masses merely accessory or subordinate, and showing hardly any black lines at all. I do not presume to decide whether the intaglio or the cameo theory is the sounder. I have admired both; but not when they were mixed in the same picture, as they frequently were.

* * * *

For the same reason, I admire both Classic and Gothic, but not together in the same building. Like that other Bewick—William, the painter, friend and pupil of B. R. Haydon, and well acquainted with Scott, Keats, Severn, Hazlitt, Wilkie, and all the men and women of his time who were best worth knowing—"I do not see why one may not admire Greek architecture and Gothic at the same time, without running to the extremes of determined hatred and rapturous attachment. Each possesses its peculiar merits, fitness, and beauty; comparison and preference of one or other serves no object. They will still exist to the admiration of all posterity. . . . Wherefore should we not feel the beautiful harmony and purity, the just proportions and classic taste of Greek architecture?" That was written by William Bewick in 1853, when sham Gothic was rampant, and the Classic idea was on its defence. To-day it is sham Gothic that is on its defence—if, indeed, it has not been already condemned and executed—or not executed.

DIOGENES.

PREPARING FOR PEACE. I.

BY C. H. B. QUENNELL, F.R.I.B.A.

At a time like the present, when national energy is largely occupied with the production of the essential munitions of war, it is almost inevitable that the requirements of the future should, out of sheer necessity, be overlooked or ignored. But some things must be remembered if the return to normal life is to be managed without undue inconvenience and delay. It is essential, for example, that we should be ready with schemes of construction and reconstruction, in order not only that the men released from the Army may find immediate employment, but that the magnificent plant which has been assembled in the workshops of the country for the purposes of the war, may not lie idle but be at once adapted to the pressing requirements that will immediately follow the declaration of Peace. We have been fortunate in securing from Mr. C. H. B. Quennell an important series of articles on subjects of great topical interest. The first of these, dealing with the matter mentioned above, appears below. Others will follow, we hope, at fortnightly intervals.—Eds. A. and B. J.

QUITE recently there appeared in the technical journals a very interesting advertisement, in which a firm of builders suggested the advisability of making plans now, so that at the conclusion of peace plant put down for war work could be used speedily for the purposes of production. The advertisement is interesting in more ways than one; in the first place, because it asks us to do something we have never done before, plan ahead; in another, as an indication that the building trade is determined that the dislocation of its industry, contingent on the war, shall be only a temporary set-back, and that by uniting our forces now we may be in a position later to play our part in reconstruction.

Fortunately the builders have not been so hard hit as the architects. Maintenance work and jobbing has had to be done, and has kept many of the smaller firms busy; box-making and aeroplane propellers have done the same for the larger people with good woodworking plant, and the big contractors have had camp construction and hutments. Labour in the building industry may have drifted somewhat, but has, on the whole, been employed at its own trade, and will be available when peace is declared for the useful work ahead.

Architects, then, may expect their share, if only we can dint, or dent, into the popular mind this consciousness that a plan is necessary. One firm of builders is to be congratulated; we must bear them in mind, these people who ask us to plan ahead.

In case it should be thought that undue insistence is being laid on the necessity for planning, it can safely be said that a more general acceptance of the principle which is involved would have seen the war finished by now. As an example of how work has been done, it may be stated, without any fear of contradiction, that a Government Department, only a few months ago, was asking the Institute for the names of men to go about the country and make plans of munition factories after they had been built. Some of these factories had areas of square miles, and they had been built without any plans at all. The remuneration offered was £3 per week, with the pound equalling about ten shillings. And this same principle, or want of principle, has spread through all the conduct of the war. John Bull will not pay for a plan, because it represents to him an intangible idea; he understands better a pound of control tea; this is a commodity—something he can lay hold of. So we must all of us work on this importance of planning. Think of the irony, or the absurdity or whatever you like to call it, of the necessity of having to have a Town Planning Act to regulate the growth of our towns; and yet that it was necessary must be acknowledged by anyone who knows anything of urban or suburban development in the nineteenth century. If only the population could be cleared out most of our industrial towns would be well enough finished by being blown to pieces—mere bomb-fodder.

But our advertisement means a good deal more than pre-war productions on Whatman's, or the sloppier efforts of photo-printing. We are to plan ahead in all ways, and everybody is at it. The Ministry of Reconstruction are planners, but not probably of bricks and mortar. The Labour Party have issued their plan, and a very momentous one it is, published in the "Daily Telegraph" of January 3—a New Year's card of moment, and one which can in no way be hedged, which must be met fairly and squarely, so that unrest is done away with and confidence restored. Perhaps the R.I.B.A. has a plan? Who knows? But it is very certain that the old order changes, and the process, if a slow one, is exceeding sure.

So it is very necessary to take stock of the position as it is at present, to decide how best we shall be able to save the community after the war. To do this we must take a wider view of our responsibilities than has previously been the case. We have worked too much in water-tight compartments; architects, builders, and men have watched one another with suspicion, yet content to let things slide so long as the competitive system produced cheap building. Quality has gone by the board, and a standard of values was evolved which was deplorable.

The political and economical side of the question has not worried us much, and there has never, for instance been any joint action in Parliament taken by the industry as a whole. The value of the acting combination of architects, builders, and workmen, brought to bear on any question, would be very great, and, with proper backing, many of the schemes brought forward in the past bearing on housing and the like would no have fallen through.

No really proper use has been made of us during the war. Had the President's offer made in the ver early days been promptly accepted by the Government the plans of those munition factories would hav been made before the same were built, not after. A great industry has been treated very badly, an stopped from rendering its full service, while luxur trades appear to have rioted unmolested. A politician's exhortation to economy is printed side b side with an invitation from some palatial "She-shop to munition workers to clothe themselves in furs a fancy prices. A touch of our combined working qualit could have stopped all this.

There is a suggestion that there should be a Parliament of the Building Trades, and here, if all th branches come together, a lot can be done in the wa of combined action. The professional man is to b allowed to join the trades unions, and this may hav the result of greater interest being taken in technica processes and education; it may as well be cheerier t take beer with a bricklayer than feast within th exclusive circle of the Council Dining Club.

Perhaps the most cheering aspect of the position that the Government in the middle and very crisis c the great war have realised that no good can come c their efforts towards reconstruction unless education placed in the forefront of their programme. Guide doubtless by political expediency in the first case ou leaders recently showed a disposition to lighten th ship of State by heaving overboard the most valuabl part of their cargo, the Education Bill; but the commo tion caused by this proposal has made them thin better of it, and, opportunists again, they carry o because it is evident that they must do so. The goo sign is that the Labour Party are determined that the should, and it is splendidly reassuring, this first re measure, not of immediate war concern, the Education Bill, and that it is backed and desired by Labour.

In Mr. Fisher we have for the first time a man who is a great educationist, and a great gentleman, one who will see that education does not mean only the manufacture of operatives for the industrial machine, but the endowment of children with some appreciation of the graces of life and the art of living. Here are some of the reasons for the Bill, and that they exist is a national disgrace:—

1. Child Neglect.—Of every 1,000 children born 110 die in the first year. In 1915 the number lost was 89,477. Of six millions attending elementary schools over 600,000 are verminous or unclean; over 600,000 are ill-fed; some two millions have bad teeth; over 500,000 have weak sight, and about 250,000 have diseased ears or throat.

2. Child Employment.—Of children under fourteen some 70,000 work "half-time" and about 250,000 work outside school hours for wages (ten to forty hours a week over and beyond their school work).

3. Neglected Youth.—Of young people between fourteen and eighteen (three millions) it is estimated that two millions are receiving no education.

Now as to what the Bill proposes (the numbers in brackets refer to clauses of Bill):—

1. All children to attend school to fourteen or over (8).

2. All young persons to attend for further education either at secondary schools full time to sixteen or at day continuation classes part time (eight hours a week) to eighteen (3, 10).

3. No child to be employed for wages under twelve (13). No street trading under fourteen (13). Over twelve no child to be employed before or during school hours or after 8 p.m. (15).

4. Central classes to be provided for elementary schools and practical subjects taught (2).

5. Medical inspection extended to all State schools, including continuation schools, and authorities may provide medical treatment (18).

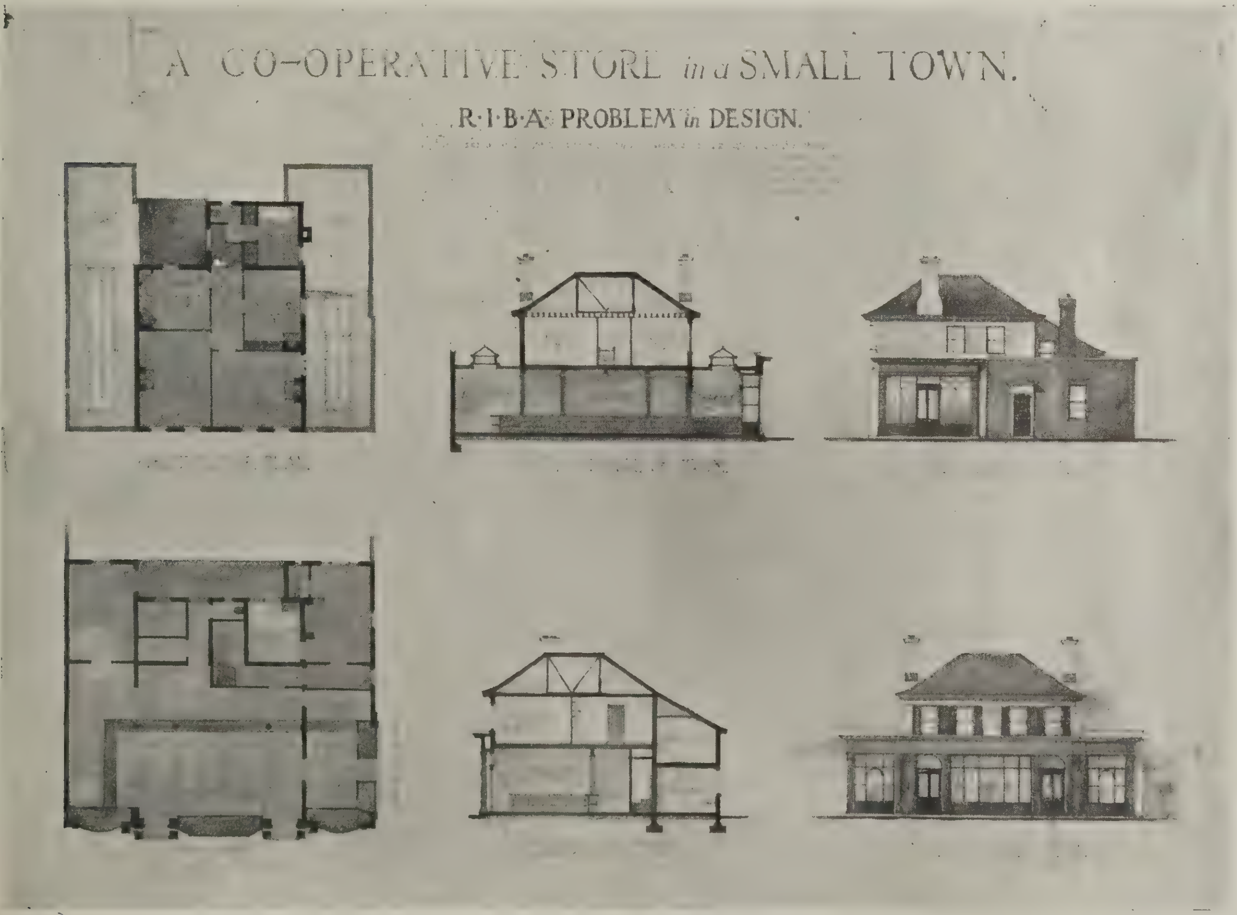
6. Nursery schools to be encouraged (19).

7. Physical training to be encouraged. School camps. Playing fields. Baths (17).

8. Local Education Authorities to submit comprehensive schemes, covering all forms of education, including supply of teachers (1, 2). To combine with other authorities for certain matters (5, 6).

Now all this is of direct interest to us, if we take no higher view than that so radical a change in our educational system will need the alteration of existing buildings, and the provision of new, and consequently that all architects, builders, and manufacturers interested should bestir themselves now, that they be ready for the work when it comes. But beyond all this is the opportunity to try and do something which shall be beyond all questions of interest and profit, which shall help in the work of humanising education.

If we take the great public schools, now so unfortunately monopolised by the wealthy, we find how much their traditions have settled round hall and chapel, quad and house. Not wholly a question of building, yet beautiful building with a human quality in it, contributes to an atmosphere which brings back men all through their lives to recreate their youth, and in their youth played a part in their education. Bill Jones, who went to the Upper Milltown Board School, lacked all this. It is evidently Mr. Fisher's intention that his children should have wider opportunities and fuller chances. Our part of the work will be to see that the buildings shall worthily fulfil their purpose.


A CO-OPERATIVE STORE in a SMALL TOWN.
R·I·B·A· PROBLEM in DESIGN.

DESIGN FOR A CO-OPERATIVE STORE IN A SMALL TOWN. BY THOMAS BILBOW.

(See also Supplementary Plate.)

CORRESPONDENCE.

Professional Unity.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I am sorry to see from your note on R.I.B.A. doings that the proposal for forming a strong unified professional Institute by absorbing smaller corporate bodies has been turned down.

I cannot help thinking that the opposing element are unaware of their own point of view.

They cannot realise that the question at stake is not the maximum temporary and individual value they may severally obtain from their qualification and the expenditure disbursed to secure it, but the security of a great profession which once attained will benefit the entire membership for the future.

As all must realise the disabilities due to the existing state of affairs, surely the mere sharing of their more fortunate state with some others is not much to ask of one generation of a profession.

Let us be worthy of our successors and pay the tax (if tax it can be called) to secure the unity and welfare of our calling.

I may add that only this year have I changed A. for F., but have held these views many years.

Yours truly
A. J. HEALEY, F.R.I.B.A.,
Now Field Engineer to C.R.E., C.T., 1st Anzac.

Temporary Buildings.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—We were interested in the editorial comments in this week's issue of your Journal on the temporary buildings in St. James's Park, particularly the sentence, "Surely it is quite unnecessary to build temporary buildings of brickwork."

But why not? Our experience in Leicester is that temporary buildings of any magnitude can be erected more quickly and more economically with 9 in. brick walls, a concrete floor, and a flat wooden roof with an impervious covering than with any other materials.

The erection (in this form of construction) of a local temporary hospital in 1915 under our direction, consisting of five single storey blocks each 400 ft. long by 23 ft. 6 in. wide, an orderly block, nurses' quarters, and sundry other buildings, was completely finished and partly occupied in the space of eight weeks.

It would involve too much space to give comparative prices, but it is our experience that there is no form of construction which has any pretence to stability that can compare in speed of erection and economy with a brick wall.

The "comfortable building of useful dimensions" that can be put up with such magical rapidity would surely require a certain amount of skilled labour in its erection paid for at no less than the bricklayer's rate of remuneration.

All materials depreciate on the demolition of buildings, but we are of opinion that bricks do not suffer in value more than woodwork and other materials.

Yours faithfully,
EVERARD, SON AND PICK.

[The buildings that are being put up in St. James's Park are not temporary hospitals, nor did we suggest timber as the only alternative to brickwork. We had in mind such "newer materials of construction" as asbestos-cement sheeting or blocks, and the like, which admit of more rapid construction than brick building, without demanding the relatively high degree of skill claimed by and for the bricklayer. The buildings that we have seen "put up with such magical rapidity" are of standardised units, which require little or no skill in the fixing, and can be taken down without perceptible damage to the units. We do not for a moment question the wisdom of our correspondents' choice of material, and we heartily congratulate them on their achievement; but circumstances alter cases. For example, the recent spell of severe frost did not assist rapid construction in brickwork, and it would have had no effect whatever on the newer materials of construction that do not require mortar for fixing them. Further comment on this subject appears in our editorial columns.—EDS. A. AND B.J.]

THE PLATES.

War Shrine at St. Bartholomew the Great, Smithfield.

THE gate entrance to St. Bartholomew the Great has lately been modified by the removal of the tiles and the exposure of the ancient timber work underneath them, and the shrine, illustrated on one of the plates in this issue, has been erected from the designs of Sir Aston Webb, R.A., in memory of those connected with the church who have fallen in the war. It occupies the site of some modern stonework which was put in when the shop front was set back on the acquisition of the shop, and was dedicated by the Bishop of Willesden a few weeks ago. Mr. W. S. Frith was the sculptor.

Doorway from No. 18, *Carey Street, London.*

This delightful doorway, of carved pinewood, is in the characteristic manner of the early eighteenth century. It formerly belonged to No. 18, Carey Street, Lincoln's Inn Fields, and is now in the Victoria and Albert Museum.

Ceiling from No. 15, *Hanover Square, London.*

This is part of a late eighteenth-century ceiling (consisting of painted panels and moulded plaster decoration), from No. 15, Hanover Square, formerly the premises of the Royal Orthopædic Hospital. The original paintings, together with reproductions of the plasterwork, are now in the Victoria and Albert Museum, South Kensington. This museum has acquired, within recent years, intense architectural interest; and it now includes the fine collection that had formed the Architectural Association's museum in their old premises in Tufton Street, Westminster.

Design for a Co-operative Store.

The remarkable growth of the co-operative movement within recent years no doubt suggested the inclusion of this subject in the R.I.B.A. Testimonies of Study. Mr. Thomas Bilbow's design, of which plans and sections appear on the preceding page, is a refined piece of work, somewhat in the "Colonial" manner.

The Cour de Cassation in the Palais de Justice, Paris.

Coquart's Cour de Cassation is an extraordinary experiment in the Rocaille—an exposition of Piranesian rhetoric, a volley of detail strong and voluptuous, with a depth of sensuous meaning. The frothings of all styles are here, including the horrid contortions of the seventeenth-century Venetian School. One gasps with astonishment at the daring which clothed a law court in such a garb. Yet the design is coherent and consistent—rhythm and balance are there; the composition of part to part is well studied. All things considered, and the travesty of academic taste admitted, it cannot be denied that this work has a character that engages close and almost appreciative interest.

WAR·BVILDINGS·SECTION

R.I.B.A. AND BUILDING RESTRICTIONS.

A GENERAL meeting of the Royal Institute of British Architects was eld on Monday at the offices, Conduit treet, Regent Street, under the presi- ency of Mr. J. Henry T. Hare, the presi- ent.

Following the transaction of formal usiness, Mr. Herbert Wills proposed the ollowing resolution: "That in view of the xtremely important interests involved, is Institute should take action in con- unction with other bodies to represent to e Government their strong objection to e continuance of any system of control er building after the war." He said at the question became extremely gent in view of the report which had en issued on the housing question. In s opinion, the want of working-class ac- ommodation had been very greatly exag- erated, and the statistics should be ken *cum grano salis.* At present e working classes were in receipt of ages which had no necessary relation to onomic standards. No sane person ished to withhold a proper return to bour, but they must insist that the orkers should give a proper return in the ape of services rendered, otherwise the dustries of the country would be brought a standstill whatever Government was power. He believed that the present mand for housing partly rested upon a undation of sand, because trade in the ture must be enormously affected by the nditions of peace, which at present were ghly uncertain. They might, or they ight not, have a continuance of the esent condition of unrestricted competi- n. They might, or they might not, ve the chance to admit German- anufactured goods as before. Then ere was the question of emigration—they d no data as to the number of those who uld want to leave the country after the r, but it was certain that a great many uld emigrate to the colonies and else- ere. He contended, therefore, that it s impossible to arrive at any reliable statistics in regard to the question of housing after the war. Private enterprise up to the last eight or nine years had been responsible for the provision of about 97 per cent. of accommodation required. That condition of things had been largely altered by the Finance Act of 1899, which the Government had reluctantly pledged themselves to amend, and he thought they should add their voice to that of other bodies in urging the Government to that end in order that private enterprise might be encouraged. On all grounds he suggested that it would be very unwise to embark on a large measure of housing immediately after the war. In his view housing should take its normal position after the war alongside other branches of industry. He did not believe that any man could wisely be allowed to say whether "A's" building should have preference over "B's," or whether both should be sidetracked in favour of "C's." His view was that, as architects, they would get remarkably little out of housing if it was done by a Government Department. The country would be flooded with an approved type of design, and seeing that every local authority had its surveyor, could they reasonably hope that those bodies would call in expert advice from the outside? As an institute, they should insist upon building being put back after the war into the conditions it enjoyed before.

Mr. John Slater seconded the resolution. He said there could be no doubt that during the last three years architects had been suffering more severely than any other professional men. Some architects had been practically reduced to penury, and a good many others had been steadily impoverished. It was highly creditable to the profession that they had taken the restrictions on building without complaint, and they had done so because they felt it to be their duty in the interests of the country. If, however, they were to have restrictions after the war it became a very different matter—would it be within the wit of man to create such a committee or to appoint an individual who would be so thoroughly seized with all the circumstances of the case as to be able, without inflicting great injustice, to say that such and such a building should go on and such and such a building should not. He thought it extremely doubtful. The matter was one that not only affected architects, but it affected the whole country. A great number of industries, which for many years past had been the monopoly of Germany, would be founded in the country. Those industries would require factories built, and they ought to go up as soon as possible after the war was over. Then, again, a large number of municipal and other public buildings had been stopped during the war, involving the ratepayers in heavy loss. Those buildings ought to go forward as quickly as possible after peace was declared. It had been hinted that the main building problem after the war would be the provision of houses for the working classes. He would be the last in the world to deny that the housing accommodation in many parts of the country had been, and was, woefully deficient, but what was the use of having a large scheme of housing unless they allowed facilities for private enterprise which would give employment to those to be housed? In the past they had found that such matters, if left to private enterprise, settled themselves in a shorter or longer time, but if they tried arbitrarily to force the current of events into an artificial channel they created false economic conditions which sooner or later were bound to end in misery and discomfort. The question which the resolution raised involved an important point of principle, and he hoped it would be passed unanimously.

The President announced that letters approving the resolution had been received from Mr. Harry Gill, president of the Nottingham and Derby Association; Mr. W. K. Gleabe, Mr. R. J. Wilson (Aberdeen Society), and Mr. Alan Pimm (Devon and Exeter Society). Mr. Paul Waterhouse had written to the effect that, while he supported Mr. Wills to some extent, he thought it would be a mistake to pass the resolution as drafted, and he suggested that the better course would be to agree to a resolution which should strengthen the deliberations of the executive of the Institute on the subject.

Replying to Mr. Brodie, Mr. Slater said he took it that Mr. Wills, by his resolution, meant to object to a continuance of the present restrictions on building after the war. That was the sense in which he seconded it.

Mr. Wills remarked that that was his intention, but perhaps he had not drafted the resolution very well.

Mr. Mark Judge said that after what Mr. Slater and Mr. Wills had said it would not be necessary for him to proceed with his amendment, of which he had given notice. He agreed with every word that Mr. Wills had said, but the wording of the resolution went far beyond what they were prepared to agree to.

Mr. Wills said he was quite prepared to alter the latter part of his resolution to read that they offered their strong objection to a continuance "of the present war system of restriction on building after the war."

Mr. W. Woodward said he thought they all agreed that it was only right and proper that restrictions should have been put upon building operations while the war was in progress, but they should cease as soon as possible when peace was declared. In regard to housing, he believed that the Government were being urged to set up an entirely new department to deal with the matter. In all probability that would mean standardisation and the employment of many hundreds of men for the designing of houses for the working classes. Such a department, in his opinion, would be fatal to the execution of proper cottages for different parts of the kingdom, where conditions differed locally as regarded labour and materials. In his opinion private enterprise would do all that was necessary in the way of providing houses for the working classes. He would be very sorry if the Institute was to become a party to the formation of any Government department which should have under its control the erection of the half-million houses which they were told were required. Why should not private enterprise provide those dwellings as in the past?

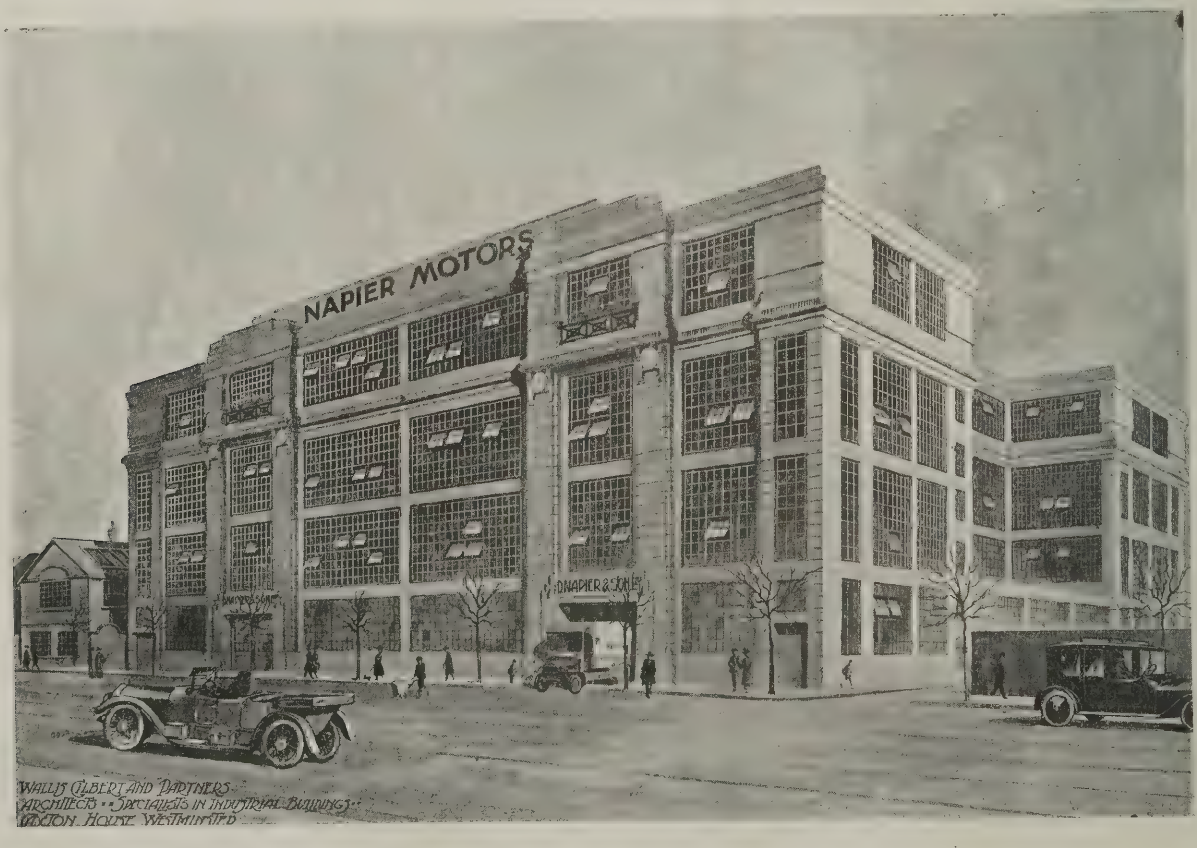
Professor Adshead, in supporting the resolution, said that Mr. Wills had introduced this question of housing, and there was no doubt that that was largely at the root of the matter, but the resolution did not refer to that question at all. It appeared to him rather unfortunate that the discussion should have so largely turned upon that question, for he did not think that the Institute was competent to say whether houses were wanted or not. It was, however, generally assumed that some half-million houses would be wanted directly the war was over, and that previous to the war about 75,000 houses had been built annually, about 95 per cent. by private enterprise. It was also known that when there was a shortage of houses owing to a rise in the cost of materials people crowded into existing houses and rents had not risen in proportion to the increased cost of materials. If they had to build an abnormal number of cottages after the war there would be an abnormal condition of things prevailing, and abnormal methods would have to be adopted to cope with the situation. He was one of those who thought that the Government ought to assist in housing, but even so they would never be able to build anything like the number that would be wanted. There would be plenty of room for the private owner to compete if he cared to. In regard to the question of architects taking a part in schemes of municipal housing, he thought it was a great pity that the Institute should publicly state that, in its opinion, this building would be done entirely by the surveyors and the public authority to the exclusion of the architect. He thought that was a very unhealthy attitude for the Institute to take up. Everything pointed to the fact that the architect would have a larger share in these housing schemes than ever before. At a meeting of surveyors held recently, resolution was passed that in municipa housing schemes architects should b called in to design the houses.

Mr. Woodward: That is a pious hope.

Professor Adshead said that, so far from its being a pious hope, he had recently been called in by two local authorities t assist in their housing schemes. H thought the Institute would make a ver great mistake if they assumed that archi tects were not going to be called in.

Replying to questions, Mr. Wills sai his argument was that the suggested legis lation was mainly due to the fact that th Government considered a big housin programme necessary, and that unles other forms of building were restricte there would not be enough labour or mate rials to carry their scheme out. There fore, he believed they intended to restric building generally in order that housin might not be checked.

Mr. W. H. White, speaking in suppor of the resolution, said that unless buildin had a free hand in order to erect factorie


NAPIER MOTORS
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ARCHITECTS • SPECIALISTS IN INDUSTRIAL BUILDINGS •
CAXTON HOUSE WESTMINSTER

NEW WORKS FOR MESSRS. D. NAPIER AND SONS, LTD., ACTON.

WALLIS, GILBERT, AND PARTNERS, ARCHITECTS.

t the close of the war to encourage home ndustries, they would be checked just at he wrong moment.

Mr. G. Hubbard said they had seen how he provision of houses by the Peabody rustees and other public bodies on a semi-hilanthropic basis had checked pri-ate enterprise. If the Government was o take building in hand he was afraid it vould put a stop to every scrap of private nterprise.

Mr. Cresswell said he supported the re-olution, but he was sorry it did not o further. He would like to see many ther matters grouped with the one they vere now discussing. Let the Institute neet with other public bodies and agree n a sort of manifesto, which should be ent to the Government informing them of nany things of which they were now en-irely ignorant. He thought the resolu-ion would have more weight if it was part f a larger and more comprehensive cheme.

Mr. Niven said it was quite evident that fter the war there would be people who ould be short of houses, and he did not hink they would be able to be supplied nless there was a Government subsidy. Ie quite agreed, however, that it would be nfair for the Government to put one class f building before another. What the uilding trade wanted was to have normal onditions restored at the earliest possible ioment.

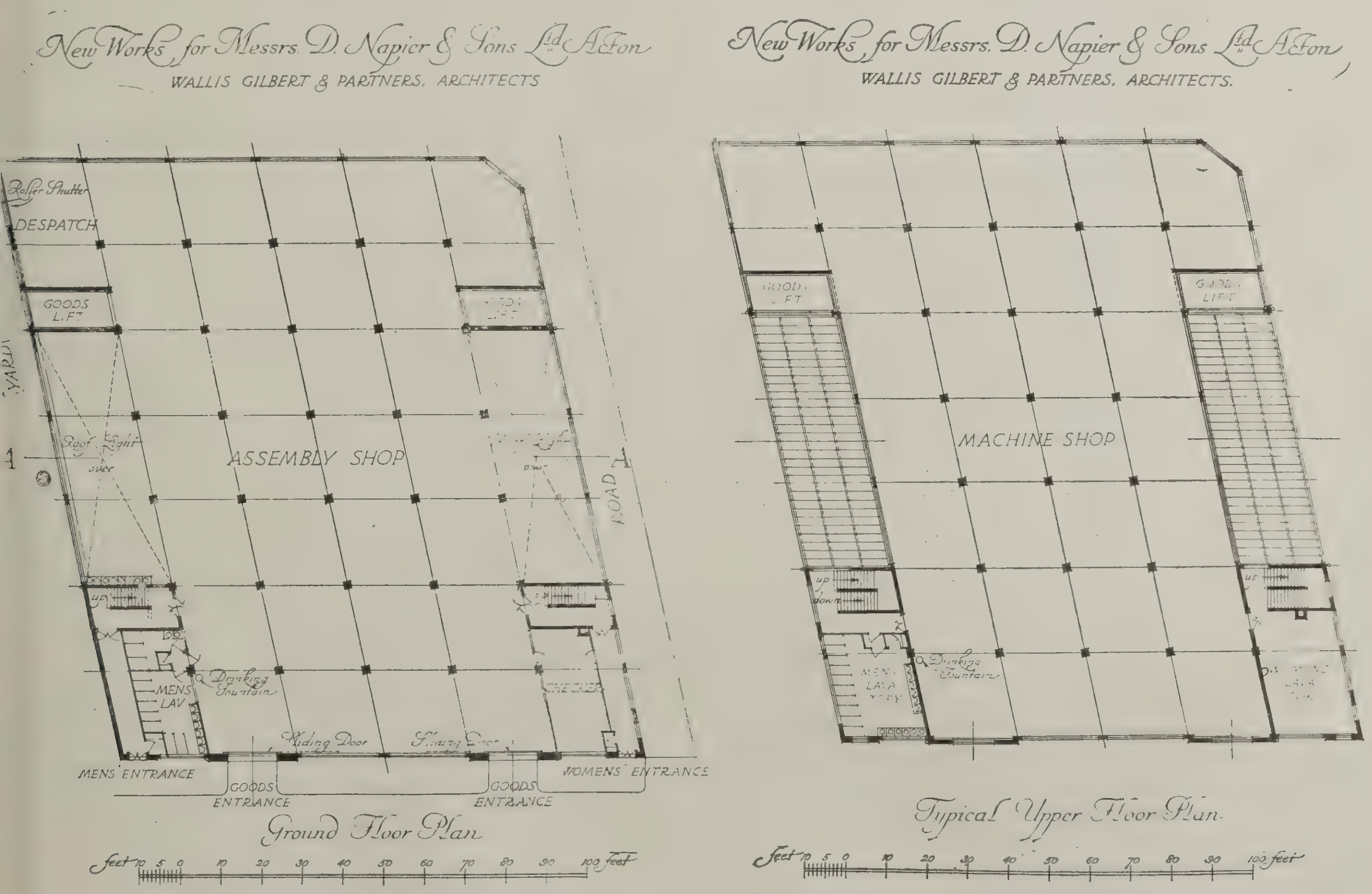
Mr. Bernard Dicksee, speaking in sup-ort of the resolution, said the position eemed to him to be this—the Government n the interests of the country had found necessary to impose restrictions because f the war. Those restrictions had affected ne building trade and architects to a far reater extent than any other trade or profession. They had submitted to those restrictions without complaint because they were necessary to win the war, but when the war had been won there was absolutely no reason for continuing those restrictions. He saw no reason whatever why the restrictions should continue for one moment when the war was over, and he hoped the Institute would make that opinion known to the Government.

Mr. Lanchester said he would like to point out that when peace came there would have to be a demobilisation of material as well as of men, and the Government must take a hand in restoring things to their normal condition. The whole matter was a very complex one, and he hoped the Institute would be able to enforce its views as to what was the proper course to pursue. At the present moment, however, he strongly deprecated passing any resolution which would tie their hands in any negotiations they might enter into in the future. He thought it was too soon to pass a definite resolution which might land them in a false position. They had a very appropriate joint committee considering the whole matter, and he was quite sure the president would consider very sympathetically any suggestion for the enlargement of that committee from other bodies, and that he (Mr. Lanchester) thought was the best way to deal with the matter.

Mr. C. T. Ruthen said that in regard to the question of housing, he came from South Wales, where some years before the war there was a shortage of 60,000 houses. He agreed that it might be necessary to get back trade when the war was over, but he was convinced they would never do that in South Wales unless the workman was housed. Unless something was done to remedy the existing state of things in that respect, they would have an industrial revolution in that part of the country for certain. While he felt that housing should be put before everything, he agreed with Mr. Wills that the Government should not control other forms of building.

Mr. Wigglesworth remarked that there was general agreement that interference *per se* was most objectionable, but they must realise that it was quite impossible to resume the normal condition of things immediately after the war. In other words there must be Government control, much as they disliked it.

Sir Aston Webb said that for three and a half years building had been practically stopped on account of the war and architects and builders had suffered greatly, but willingly. Seeing, however, that they had suffered so much, he thought they would all agree that when the reason had gone they were not prepared to suffer in the same way in the future. Therefore he thought that some such course should be taken as was suggested by Mr. Wills. The point was a very simple one—were they going to have the same restrictions after the war as they had now? There were rumours of more restrictions of very serious importance. That naturally frightened them and made them nervous and irritable, and they wondered whether those rumours were true. It was of the first importance that the building trade should know what was in the mind of the Government in reference to this matter at the earliest possible moment, and therefore he thought the Institute would be doing the right thing in approaching the Government and asking them what their intentions were. They should tell the Government that in their opinion it would be extremely unfair that certain lines of


New Works for Messrs. D. Napier & Sons Ltd. Acton
WALLIS GILBERT & PARTNERS, ARCHITECTS
Roller Shutter
DESPATCH
GOODS LIFT
YARD
Roof Light
ASSEMBLY SHOP
ROAD
up
MENS LAV
Drinking Fountain
CHECKER
Sliding Door
MENS' ENTRANCE
GOODS ENTRANCE
WOMENS' ENTRANCE
feet 10 5 0 10 20 30 40 50 60 70 80 90 100 feet
New Works for Messrs. D. Napier & Sons Ltd. Acton
WALLIS GILBERT & PARTNERS, ARCHITECTS.
GOODS LIFT
MACHINE SHOP
up
down
MENS LAVATORY
Drinking Fountain
feet 10 5 0 10 20 30 40 50 60 70 80 90 100 feet

Ground Floor Plan

Typical Upper Floor Plan

NEW WORKS FOR MESSRS. D. NAPIER AND SONS, LTD., ACTON.

WALLIS, GILBERT, AND PARTNERS, ARCHITECTS.

building work should be given preference over others, and he believed the authorities would be pleased to receive the reasoned views of the Institute on the whole matter.

Mr. J. S. Gibson having spoken in support of the resolution, Mr. Wills agreed to alter the wording to read as follows: "That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance after the declaration of peace of the present war restrictions on building."

The President said that while he agreed with everything that had been said as to the objection that there was to continuing the present restrictions after the war, the difficulty he felt was that at the present time nobody knew what was going to be the condition of labour or materials when that time came. It occurred to him that probably the Government at the present time did not know whether or not it would be necessary to impose any restrictions; they were to a great extent working in the dark, like all of them, but they were trying to prepare for contingencies. If that was the case he did not think the present was the time for the Institute to commit itself to a definite resolution, and he would prefer if they came to any resolution at all that it should be one asking the Council to take steps to represent to the Government that the present restrictions on building should be entirely removed at the earliest possible moment after the signature of peace.

After some desultory discussion, Mr. A. Crow proposed the president's suggestion as an amendment, but on a show of hands it was negatived by twenty votes to eight, and the resolution was carried by twenty-five to two.

NEW MOTOR WORKS, ACTON

These works, designed by Messrs. Wallis, Gilbert, and Partners, are an excellent instance of the possibility of investing the elevations of strictly utilitarian buildings with architectural interest, and at the same time meeting with the utmost efficiency all the practical requirements of good lighting. The works are to be erected on the Kahn "Daylight" system of reinforced concrete construction. (See illustrations, pages 30 and 31.)

THE BRITISH MUSEUM AND THE AIR MINISTRY.

Lord Curzon's statement announcing that the proposal to instal the Air Ministry in the British Museum had been dropped is thus reported in "Hansard":

"As regards the British Museum, it has been found possible so materially to reduce the demands for the accommodation of the Air Ministry that it is no longer necessary to appropriate a building of that size. That, I may say in passing, was the sole reason for which the proposal had been put forward to consider that place. Thus it will be possible to locate the Air Ministry under my noble friend on my left (Lord Rothermere) elsewhere. Meanwhile, however, two of the floors of the new wing of the British Museum have for some time been occupied by a Public Office or for other war purposes. The progressive removal of national treasures to places of greater safety, which is being steadily pursued—as I am sure it will be with the concurrence of the House—will enable a still larger space in the Museum to be employed for this purpose, and this space will, with the consent of the trustees and in consultation with the Museum authorities, be utilised for the accommodation for other non-combatant departments similar to those which are already housed in the Museum.

"The second part of my noble friend's question relates to the Natural History Museum, a branch of the British Museum at South Kensington. As regards that place, it has been found on detailed examination that any attempt to convert the Galleries to Government uses would entail the closing of the building to the public, an extensive rearrangement of the contents and possible damage in the course of removal, the consumption of an enormous amount of labour and material, and very considerable delay. In these circumstances it has been decided that there is no necessity sufficiently urgent to warrant the use of the Natural History Museum for Government purposes."

COLD STORAGE AND THE NATIONAL FOOD SUPPLY.

The resignation of Mr. John Wardle, Director of Cold Storage and Inland Transport, has (says the "Daily News") given rise to considerable uneasiness in the cold storage trades. Mr. Wardle was appointed several months ago to develop the cold storage accommodation of the country, and, presumably, our inland water transport systems, in so far as they bear on the distribution of foodstuffs. He enjoyed the full confidence of the cold storage trades, members of which were looking to him to devise some national system. "At the outbreak of war," said Mr. Bernard H. Springett, the editor of "Ice and Cold Storage," "this country had a cold storage capacity of 30,000,000 cubic feet, equal to a six weeks' supply of meat, while Germany had a capacity equal to two years' food supply. Mr. Wardle, I understand, set himself out to develop our resources in this respect, and planned at the outset to add 10,000,000 cubic feet to our cold storage accommodation, in order to give us a minimum of a three months' reserve in the matter of perishable foodstuffs.

"He had no special knowledge of cold storage himself, but, as a great organiser, he soon gathered round him our best experts on cold storage. Among them were Professor J. W. Anderson, of Liverpool University, who was to deal with the subject from the scientific or theoretic side; Captain Wade, superintendent of the Manchester Markets, from the practical side on land; and Mr. R. Balfour, chief inspector of Lloyd's, from the practical side in relation to shipping and docking.

"These men, all unpaid, formulated plans for developments, and Mr. Wardle, after considerable efforts to get labour and materials, was able to complete the Port of London Authority's new stores, thus adding accommodation for 500,000 carcases to our national capacity. But most of the plans for increasing cold storage in provincial ports, I am assured, have been hung up, and Mr. Wardle and a number of men working with him have resigned.

"I do not know the precise reasons of the resignations, but I understand that the chief stumbling block is departmental officialism, which, I am told, desires to control the schemes. The subject, in view of its vital importance to the country, is one that ought to be ventilated in Parliament. Meanwhile, shipping has been, if it is not now being, delayed or lost in going from port to port. Not long ago a ship with 4,000 tons of meat put into a certain port, but, being unable to find cold storage for more than 400 tons, put out of harbour again and was sunk.

"Personally I should like to see our cold storage accommodation developed to 120,000,000 cubic feet, or six months' reserve, for wheat, meat, fish, fruit, and every form of perishable foodstuffs. Our reserves could be drawn upon and replenished at certain given periods, just as the Army and Navy overhaul and draw upon their emergencies stores of tinned rations. We need, in my opinion, a nationally organised system of cold stores, with large storage capacity at the ports, and smaller stores at every inland centre with a population of 20,000 to draw supplies as required from the larger bases at the ports.

"The question whether these cold stores should be privately, municipally, or nationally owned does not concern me at the moment. The fact remains that if we had a nationally organised system we could save thousands of tons of bread, meat, fish, and fruit now wasted every year. The saving would be particularly great in the matter of herrings if the surplus were stored at times of glut."

[A practical article describing various systems of cold storage is an important feature of the 1918 issue of "Specification," which is now in the hands of the printers and will shortly be ready for publication.]

OBITUARY.

Mr. Charles Chancellor, F.R.I.B.A.

Mr. Charles Chancellor, who died at his residence, Bellefield, Chelmsford, last Wednesday night, was born at Chelsea in 1825. He was educated privately at Kingston-on-Thames, and at the London University obtained the first prize for Architecture as a Science and the second for Architecture as an Art, served his articles in the City, and was afterwards in the office of Mr. Ewan Christian, architect to the Ecclesiastical Commissioners. Later he practised on his own account in London and Chelmsford. He was appointed Surveyor to the Mansion House Committee at the time of the earthquake in Essex in 1884, and was presented by the Lord Mayor, Sir Robert Fowler, with an illuminated address thanking him for his services. As a diocesan surveyor under the Ecclesiastical Dilapidations Act he was known to most of the clergy of Essex and Herts; and in his profession as an architect he designed many churches and public buildings. A founder of the Essex Archæological Society, he contributed voluminously to its publications, and in 1890 published "The Ancient Sepulchral Monuments of Essex." Mr. Chancellor joined the Volunteers in 1859, being No. 1 on the Chelmsford roll, and after passing through all ranks he retired as lieutenant-colonel and commandant of the 2nd V.B.E.R. in 1888. He was the first Mayor of Chelmsford, and held that office sever times. was a member of the Essex County Council, a justice of the peace for Essex and chairman of the Chelmsford Grammar School Governors.

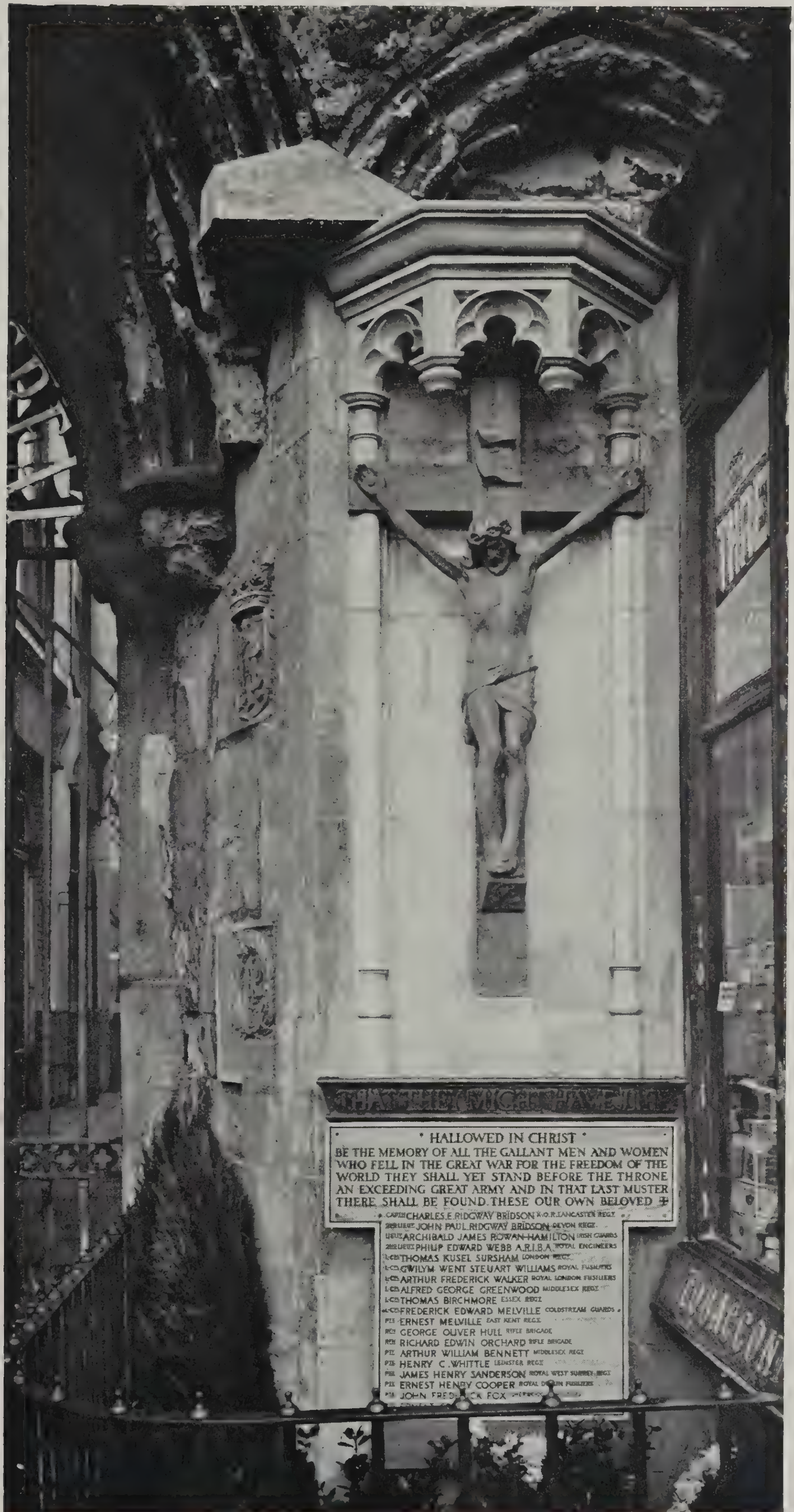
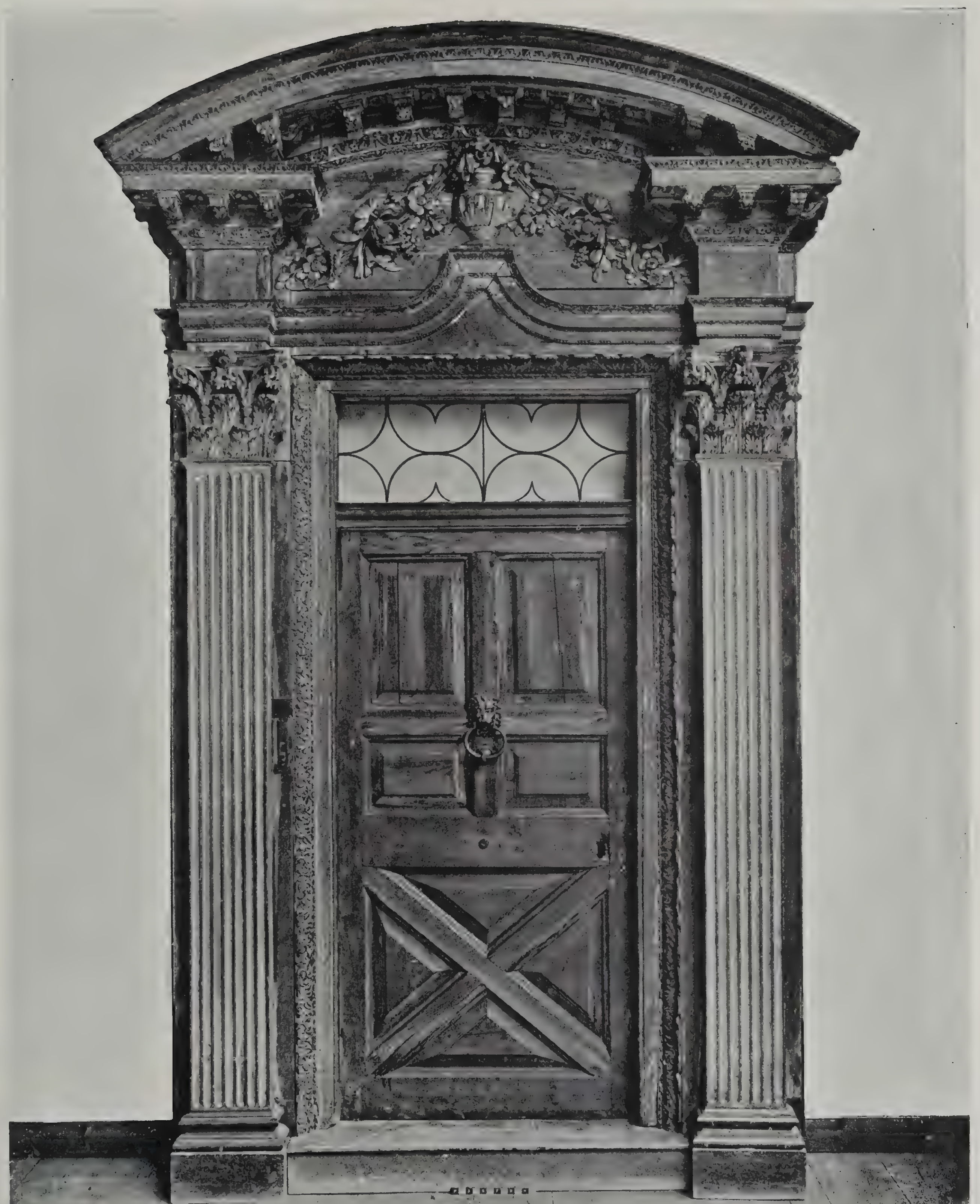

THAT THEY MIGHT HAVE LIFE
HALLOWED IN CHRIST
BE THE MEMORY OF ALL THE GALLANT MEN AND WOMEN
WHO FELL IN THE GREAT WAR FOR THE FREEDOM OF THE
WORLD THEY SHALL YET STAND BEFORE THE THRONE
AN EXCEEDING GREAT ARMY AND IN THAT LAST MUSTER
THERE SHALL BE FOUND THESE OUR OWN BELOVED
CHARLES E. RIDGWAY BRIDSON K.O.R. LANCASTER REGT
JOHN PAUL RIDGWAY BRIDSON DEVON REGT
ARCHIBALD JAMES ROWAN-HAMILTON IRISH GUARDS
PHILIP EDWARD WEBB A.R.I.B.A. ROYAL ENGINEERS
THOMAS KUSEL SURSHAM LONDON REGT
GWILYM WENT STEUART WILLIAMS ROYAL FUSILIERS
ARTHUR FREDERICK WALKER ROYAL LONDON FUSILIERS
ALFRED GEORGE GREENWOOD MIDDLESEX REGT
THOMAS BIRCHMORE ESSEX REGT
FREDERICK EDWARD MELVILLE COLDSTREAM GUARDS
ERNEST MELVILLE EAST KENT REGT
GEORGE OLIVER HULL RIFLE BRIGADE
RICHARD EDWIN ORCHARD RIFLE BRIGADE
ARTHUR WILLIAM BENNETT MIDDLESEX REGT
HENRY C. WHITTLE LEINSTER REGT
JAMES HENRY SANDERSON ROYAL WEST SURREY REGT
ERNEST HENRY COOPER ROYAL DUBLIN FUSILIERS
JOHN FRED CK FOX

Photo: Bedford Lemere.

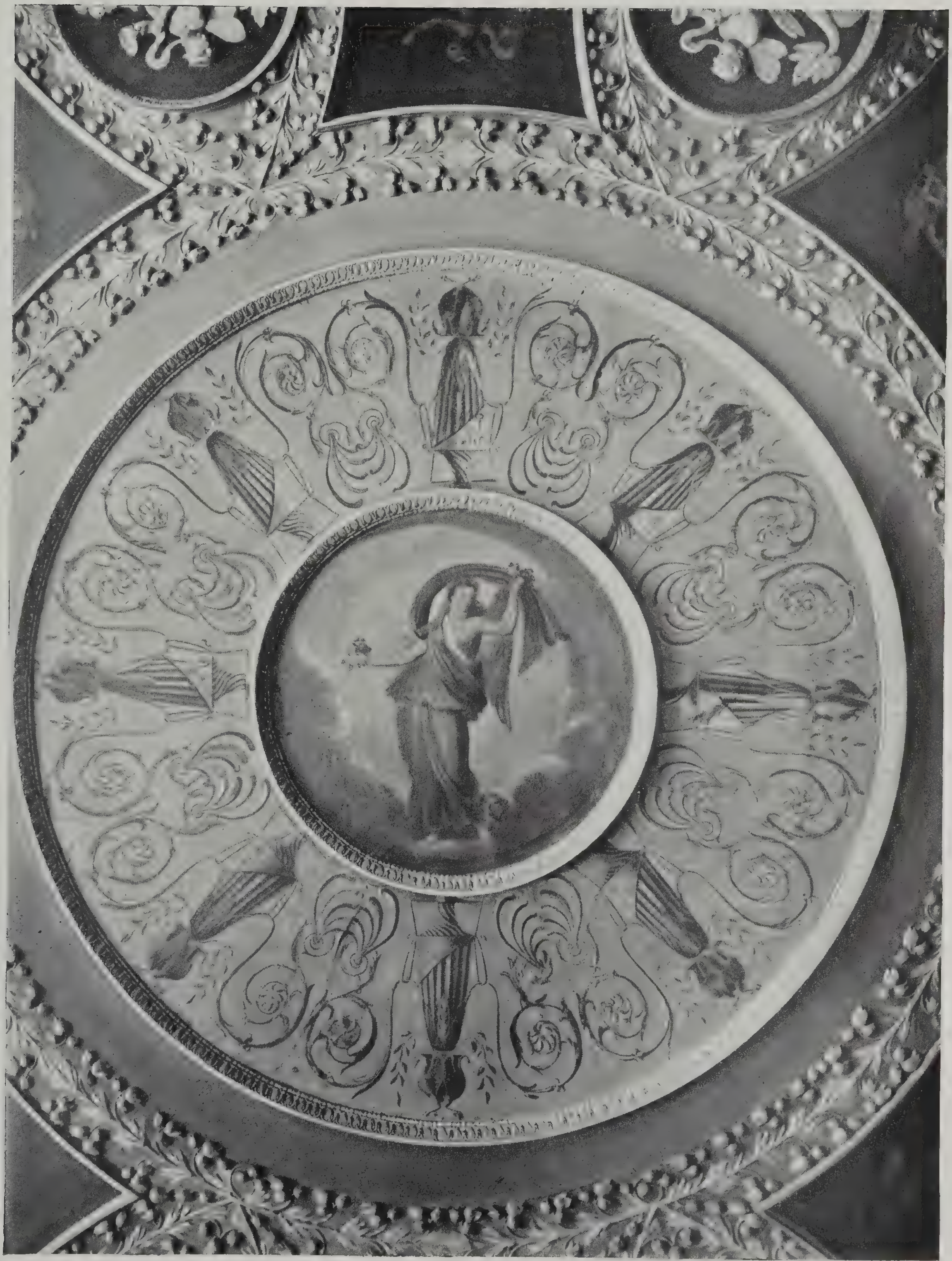
CURRENT ARCHITECTURE (SERIES IV.). XLIII.—WAR SHRINE AT THE ENTRANCE TO ST. BARTHOLOMEW THE GREAT, SMITHFIELD, LONDON.

SIR ASTON WEBB, C.B., R.A., F.R.I.B.A., ARCHITECT.



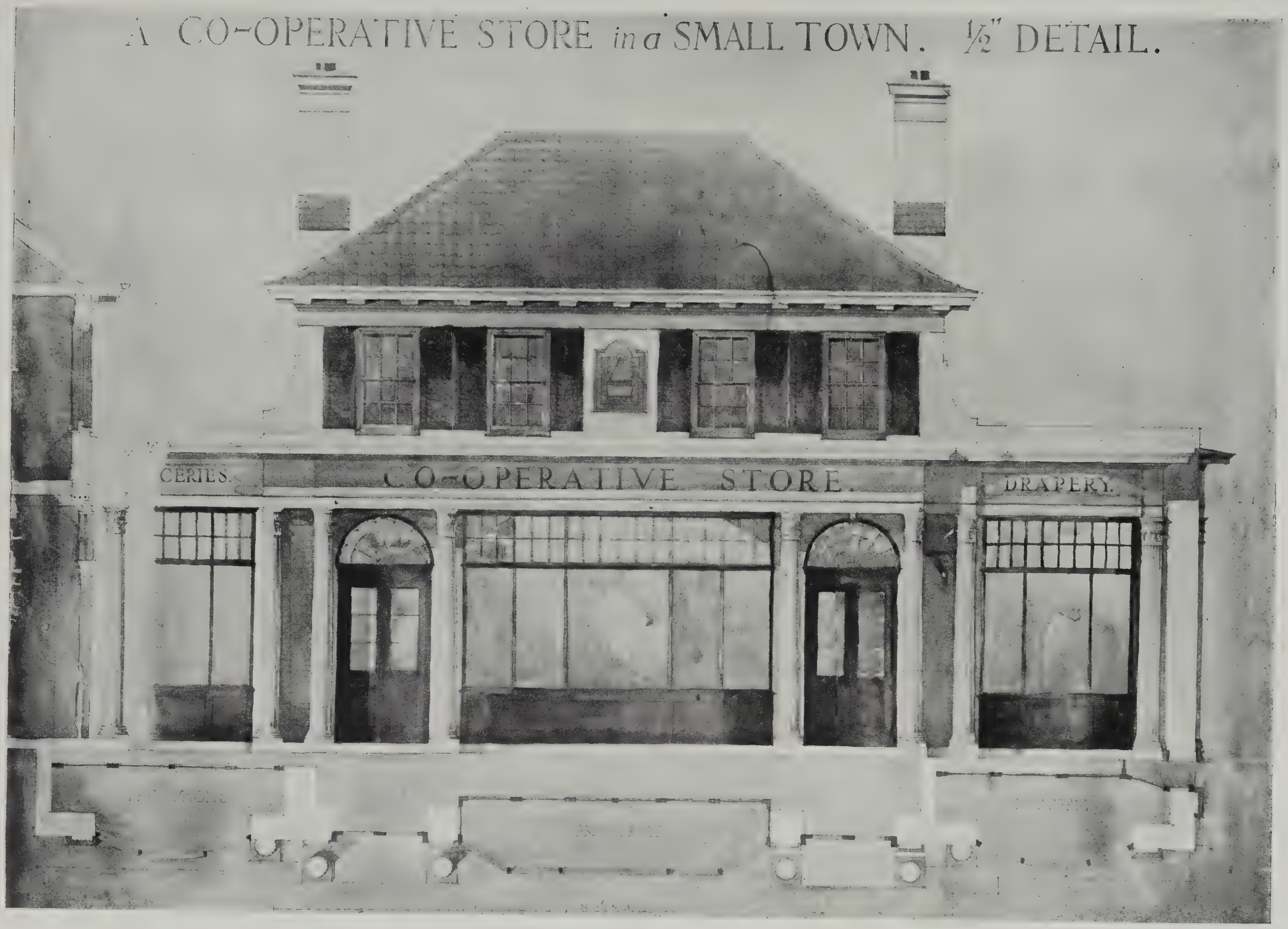
DOORS AND DOORWAYS. XIX.—FROM No. 18, CAREY STREET, LINCOLN'S INN FIELDS, LONDON.

(*Reproduced by courtesy of the Director o the Victoria and Albert Museum.*)



DETAILS OF CRAFTSMANSHIP (SERIES III.). VII.—PORTION OF CEILING FROM No. 15, HANOVER SQUARE, LONDON.
(FORMERLY THE PREMISES OF THE ROYAL ORTHOPÆDIC HOSPITAL, AND NOW DEMOLISHED.)

(*Reproduced by courtesy of the Director of the Victoria and Albert Museum.*)



STUDENTS' DRAWINGS (SERIES III.). X.—A CO-OPERATIVE STORE IN A SMALL TOWN.

BY THOMAS BILBOW.

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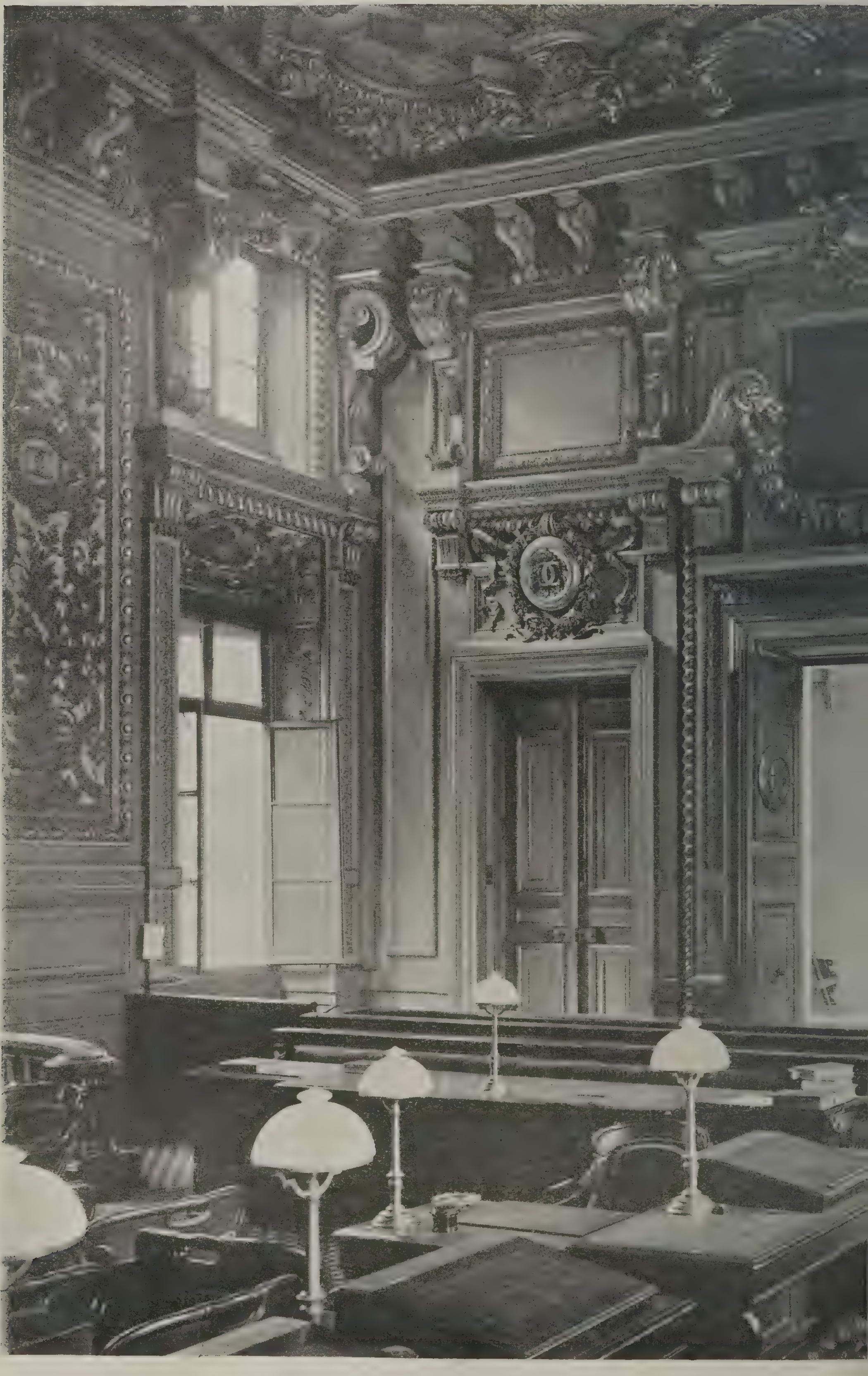
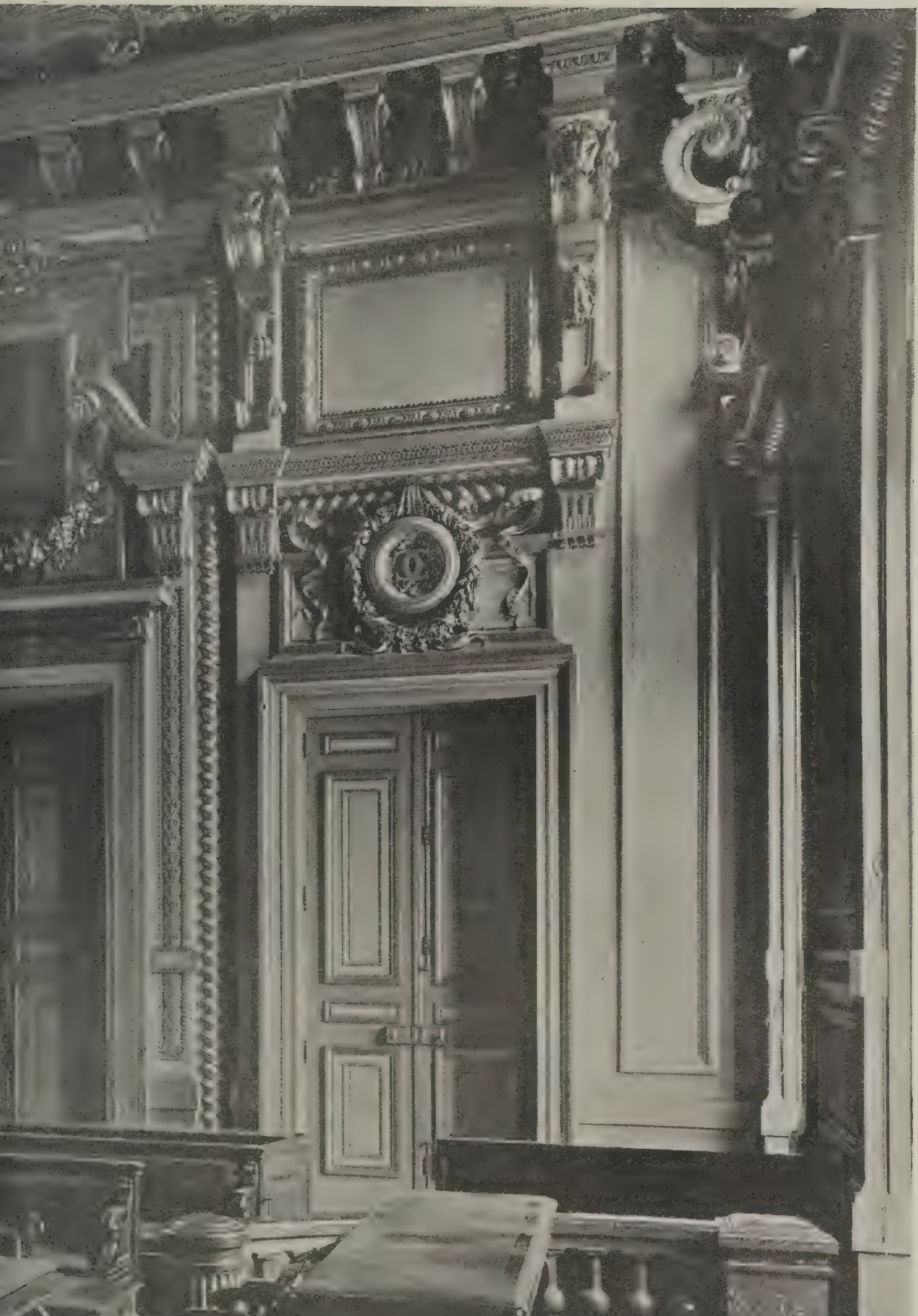


MODERN FRENCH ARCHITECTURE. XIII.—THE PALAIS

M. COQUART.



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THE ARCHITECTS' AND BUILDERS' JOURNAL.

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NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause wastage of effort and materials.

WHAT was the real object of the motion brought forward by Mr. Wills, and carried in an amended form, at the meeting of the Institute reported in last week's issue? These are the terms of the resolution adopted: "That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance after the declaration of peace of the present war restrictions on building." This is plain enough; but what is behind it? Mr. Wills, the sponsor of the resolution, let the cat out of the bag when, in answer to questions, he said—or is reported as having said—"his argument was that the suggested legislation" (we are not at all clear as to the meaning of this expression) "was mainly due to the fact that the Government considered a big housing programme necessary, and that unless other forms of building were restricted there would not be enough labour or materials to carry out their scheme." That is sufficiently explicit, and the whole trend of the discussion, which turned mainly on the housing proposals, showed that Mr. Wills's fears had infected the meeting. Probably they are to some extent justified. Ministers have dropped pretty broad hints that, when building is resumed, preference will be given to the housing of the people. To that course, indeed, the Government is virtually committed, and a gentle reminder to them that the policy may be pushed too far may serve a very useful purpose.

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Whether the form in which this hint is conveyed is happily embodied in the resolution submitted for the consideration of the Council of the Institute is another matter. In the first place, the resolution is both vague and uncandid. It says nothing about housing and does not mention the necessity for getting on at the earliest possible moment with the building of factories and schools. Fortunately, however, the resolution is not addressed to the Government, but to the Council, who will no doubt be able to make tactful use of it, and, in particular, will studiously refrain from conveying the rather untoward impression, which is inevitable from the report of the speeches on the resolution, that the Institute is reactionary on the matter of housing. This is a point which we do not wish to emphasise. We prefer to think that the pervading tone of those speeches was not fairly representative of the liberal traditions and public spirit of the Institute. One of the speakers was perhaps expressing more than he intended when he said, according to the summarised report, "There were rumours of more restrictions of very serious importance. That naturally frightened them, and made them nervous and irritable, and they wondered whether those rumours were true." Nervous apprehension may well stand as an excuse for a discussion that, on the whole, showed a deplorable weakening on the customary tone and spirit of the Institute; but nervous irritability is a poor basis for policy. But it is not surprising that architects have allowed this solitary groan to escape them. No profession, no class in the community, has been so cruelly hit. Hitherto it has borne its sufferings with exemplary patience and fortitude. But hardships apprehended, though they may chance to be mere figments of the imagination, are more afflictive than those that have us in their grip: "only the unknown is terrible," and threatened prolongation of the agony is less easily tolerated than its actual incidence.

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Certainly the protest seems rather premature, and, if it were immediately projected at a harassed Government, might meet with a reception otherwise than cordially sympathetic: for nervousness and irritability are not peculiar to worried architects. As Mr. Hare said at the meeting, it is probable that the Government does not yet know its own intentions in this matter. We must all abide the turn of events; and it would have been wiser and more dignified to provide the Council with a watching brief, and with a mandate "to represent to the Government that the present restrictions on building should be entirely removed at the earliest possible moment after the signature of peace." This is not a simple matter of "As you were!" It is highly complex; for, as one or two speakers pointed out, when peace comes there must be a demobilisation of materials as well as of men, and it will be quite impossible to resume the normal condition of things immediately after the war. Supposing that Government control were suddenly relinquished, greater evils would rush in, for there would be mad scrambles, selfish monopolies, profiteering cornerings, which would be infinitely worse than Government control. Only it must be control, not necessarily such prohibitive restriction as that from which we now suffer. Gradual, steady, even-handed relaxation will be a boon rather than an evil; but in accomplishing this difficult task, Government will be the more ready to seek or to accept assistance from the Institute if, in the meantime, its members can shake off their nervous irritability and continue to press their claims with as much firmness of temper as of determination. We do not think it at all likely that housing will be allowed to absorb all the building energy available after the war. Capitalists may be trusted to see to that, even supposing that any Government could be so incredibly foolish as to prohibit or unduly restrict the building of the factories and business premises upon which the rehabilitation or renascence of national trade and industry so largely depends. Schools also are a primary need.

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A very full agenda paper, issued in advance of the annual general meeting of the National Federation of Building Trades Employers of Great Britain and Ireland, shows promise of an interesting debate. It reveals, however, no very clear indication of definite policy, such as can be sometimes inferred from the wording of a resolution or the recommendation of an affiliated society. Nevertheless, the mere list of subjects to be dealt with denotes transactions of considerable importance. For example, the Contract

Committee will present a report in which the R.I.B.A. will no doubt be keenly interested. Whether any sort of finality on this much vexed question has been reached remains to be seen. Two or three rival forms of contract would be uneconomical, to say the least of it, and we are trusting that the various competitors in the unprofitable industry of producing independent documents will see the advantages of co-operation. A report to be presented by the Housing Committee, and the observations upon it at the meeting, will carry weight in the national counsels on this matter, and we must confess some curiosity to see what line will be taken by the Federation; for the organised builders have it in their power to make or mar the national scheme; more especially since, as we see from another pregnant line in the agenda, there is a proposal to form a National Joint Committee of Building Trade Employers. Routine business includes the annual election of officers, and it may be assumed that in the ordinary course Mr. James Storrs. J.P., of Stalybridge, will be succeeded in the presidency by the senior vice-president, Mr. H. Willcock, of Wolverhampton. The general meeting takes place next Wednesday, in London.

THE PLATES.

London Jewish Hospital, Stepney Green, E.

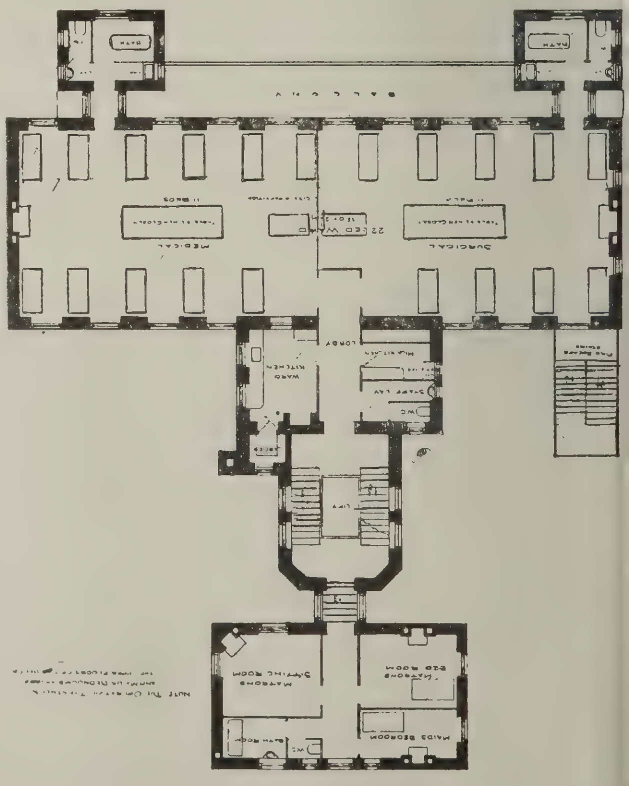
IN the East End of London there is a large Jewish colony of immigrants from all parts of the East, a large number of whom speak so little English that they cannot properly express themselves. Added to this there is a racial desire for hospital treatment under Jewish auspices on Jewish ritual lines. For some years past a movement has been on foot to supply the want of a hospital of this kind; but it was not to be exclusive, and others besides Jews were to be admitted. The movement was essentially popular, and the poor Jews subscribed quite a considerable sum of money towards it. A beautiful freehold site was acquired in Stepney Green of an area sufficient to provide ultimately for a hospital of some 200 beds; but for a start it was decided to have one main block consisting of an out-patients' department in the lower ground floor, the offices and one ward on the ground floor, two floors entirely given to patients. above these a nurses' home, and on the top of all the kitchen department and dining-rooms. The out-patients' department has been erected and equipped, and the next floor, temporarily arranged as one large ward, is soon to be proceeded with to accommodate Jewish soldiers. In this issue a perspective view of the building is given, together with plans of three floors. The architects are Mr. Edwin T. Hall, F.R.I.B.A., F.R.San.Inst., and Mr. E. Stanley Hall, M.A., A.R.I.B.A., of 54, Bedford Square, London, W.C. The contractors for the portion erected were Messrs. Patman and Fotheringham.

Wilmer House, Farnham.

Wilmer House is a notable brick building in West Street, with fine architraves, pilasters, and cornice all in brick, and a stone-framed door. The title-deeds show that at the time of its building it belonged to John Thorne, of Odiham, and that it was sold in 1723 for £523. The drawing reproduced in this issue is a characteristic example of Mr. Harold Falkner's brilliant pencil work.

The Palais de Justice, Paris.

Originally a royal palace, the buildings which now form the Palais de Justice were successively appropriated for Parliamentary and judicial purposes. When, early in the nineteenth century, the necessity arose for some scheme of rearrangement and extension, the *conseil général*, in 1835, ordered M. Huyot—who was then architect to the palais—to prepare the necessary plans. After several *proje* had been put forward, one was ultimately approved and in May, 1840, a royal warrant was given for th works to begin. In August of the same year, however, M. Huyot died. MM. Duc and Domme succeeded him, and, after devoting considerable tim to the problem, matured a scheme of rebuildin which was approved in 1847. Then came the Revolution of 1848, which further delayed the undertaking, but by 1879 (the year of Duc's death) th works were near upon completion, the cost to that date having been more than £1,000,000. The genera scheme of the buildings is well shown on the pla reproduced on page 36. The architects who successively had charge of the building during the nineteenth century were as follows: Huyot, Duc an Dommey, Duc, Duc and Daumet, and Daume alone. Though Duc was officially in charge of th Cour de Cassation (see double-page plate), th decoration of this remarkable apartment is the wor of M. Coquart alone. In the long connecting corridor (illustrated on one of the supplements in thi issue) we have a good example of the æsthetic foresight which Duc brought to bear upon his great task It will be seen that he has introduced a succession o cross springers, the plain surface of whose haunche effectively check the appearance of undue length The Escalier d'Honneur, also illustrated in thi issue, recalls the stone staircase designed by Gabrie and Antoine, but the detail belongs to a differen school. Duc's passion for displayed construction i here apparent, but in this case the forms are shaped with considerable beauty—the ramp to the stringe is continuous, and corbels are placed as intermediat supports. The critical eye is satisfied at every point The rusticated wall surface is logical and decorative the wrought-iron balustrade, lace-like in its delicacy owes allegiance to no particular period or style, bu is, nevertheless, related to the rich tradition o French smithery. In turn, this staircase has served as a motif for many recent French buildings, th double staircase designed by M. Nénot at the new Sorbonne being a notable instance.



THE LONDON JEWISH HOSPITAL, STEPNEY GREEN: FIRST FLOOR PLAN. EDWIN T. HALL, F.R.I.B.A., AND E. STANLEY HALL, M.A., A.R.I.B.A., ARCHITECTS.

HERE AND THERE.

OOR students—poverty is the badge of all their tribe—have material reasons for rejoicing that the British Museum is not to be closed against iem. A concrete case may be worth mentioning. A oor girl of good mental capacity is being with ifficulty (financial) maintained by her father—a pro- essional man whom the war has impoverished—at a ondon college. He can barely afford the fees, which re by no means exorbitant; and his daughter, who is eading for a Final degree examination, requires xpensive books. Some of these must necessarily be ought—second-hand if possible; others can be con- ılted in the reading-room of the British Museum. If ie student had been shut out from the reading-room, er career would have been imperilled. Hers, I take , is a typical case. Harder still would have been the ite of the men and women who depend for their livelibod on their delvings in the British Museum Library. nd then there is the important class of the learned, ho find the library essential to the investigations by hich they hope to enrich some department of know- dge, or the literature thereof.

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Under Panizzi's mighty dome, which was built in 357, when the main building was ten years old, nearly ve hundred readers may assemble, although I do not iink that they could all find seats. More times than can count, I have had to be content with a peripatetic ırvey of the noble array of reference books that oubly line the walls; some ingenious person having elieved the intolerable congestion of the library by ie simple but happy device of putting up a second ow of book-presses close against the first. I regret at this gentleman's name escapes me; for, in making vo leaves of books grow where before there was only ie, he qualified, *proxime accessit*. under the rule laid own by the Brobdingnagian philosopher who "gave for his opinion that whoever could make two ears of orn, or two blades of grass, to grow upon a spot of ound where only one grew before, would deserve etter of mankind, and do more essential service to his untry than the whole race of politicians put together." iese examples of intensive culture should not be lost ı the politicians who wanted to divert the British useum to military uses.

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Panizzi's career was rather romantic, was it not? orn at Brescello, Modena, in 1797, he came to ngland in 1822 as a refugee from the vindictiveness the alien Government of Italy. For eight or nine ears he earned his living by teaching Italian; then ougham took him up, and got for him, in 1831, an sistant-librarianship at the Museum; and in 1857 the alian refugee was installed in the proud position of incipal librarian. In 1869 he was made a Knight ommander of the Bath. He was no mere book- orm, but was essentially a man of action. His duties librarian, energetic and resourceful as he was in the fice, did not quench his ardour as a patriot pas- onately devoted to Italy. He died in 1879. How ell they have repaid our hospitality, those Italian fugees! We should have been amply requited, even they had given us only the Rossettis.

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Then there was Fuseli. True, he was a Swiss from ırich, but his name shows his descent. In his day had considerable influence on art education, and his oyal Academy lectures are still read. He was what ed to be called "a character." William Bewick, to iose reminiscences I had occasion to refer a week or o ago, has this note about him: "I came in contact th that strange but learned character, Fuseli, the 'keeper,' whose extraordinary language astonished and rather alarmed a raw country lad, as I was at that time—so sensitive that I blushed at my own name. Imagine my horror when a white-haired old gentleman spoke to me in language bordering upon obscenity, or swore like a trooper. It was curious in so little a man, with his odd figure and foreign accent. His peculiarities and his sayings were so odd, that more curious anecdotes were reported of him than of any other person of the time." Fuseli had mastered the idiom, but not the accent. William Bewick, by the way, spent much of his artistic life in copying. He imitated the old masters so faithfully as to deceive the very elect—a dangerous gift, but never misapplied by him, except in so far as it kept him off original work. It gave him, however, his opportunity to visit Italy; Sir Thomas Lawrence, then President of the Royal Academy, commissioning him rather handsomely to make copies of some of the masterpieces at Rome. These copies Sir Thomas wished to present to the Academy, but the project fell through.

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It was while drawing from the Elgin Marbles at Burlington House that Bewick first met the unfortunate Haydon, who was there on the same errand. Years afterwards, Goethe, through the German consul, commissioned Bewick to execute a large cartoon of some of the figures in the Elgin Marbles, "that the German men of taste might obtain some idea of these sculptures." Goethe was highly pleased with the work, and stated that his sovereign, to whom he had presented it, had ordered it to be placed in the Royal Academy of Arts. The Elgin Marbles, after they had been purchased by the Government for £35,000, were for some years exhibited in a wooden shed!,

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It was the acquisition, successively, of the Elgin Marbles, the Towneley collection, and the antiquities brought by Belzoni from the East, that made necessary the extension of the building. Fergusson has hardly a good word to say for the British Museum. Evidently he did not think it worth illustrating, save by a poor little plan of the portico. I do not think he is quite fair to Smirke. "If," says Fergusson, "the British Museum is not more successful than the National Gallery, it certainly is not so from the same causes. No architect ever had a fairer chance than Sir Robert Smirke had here. The ground was free of all encumbrances; the design long and carefully elaborated before execution; and money supplied without stint. If the buildings there have cost a million sterling, which is under the mark, it is no exaggeration to say that half that sum has been spent in ornament and ornamental arrangements, and at such detriment to convenience that already they are being abandoned in spite of the money which has been wasted upon them. The courtyard to which the whole building was sacrificed is already gone, and the portico is voted a public nuisance; though it will not be so easily got rid of as the other. Nothing, in fact, can well be more absurd than forty-four useless columns, following the sinuosities of a modern façade, and finishing round the corner—not because the design is complete—for according to the theory on which the portico is designed, they ought to be continued along both flanks—or because they abut on any building, but because the expense would not allow of its being carried further." And yet he had just said that money was supplied without stint.

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Of Towneley one remembers with joy the chestnut about his seizing the bust of Clytie and hugging it to his bosom as he ran away from his house under the apprehension that the Gordon rioters were about to destroy it. Belzoni, before he became an achæologist, was a professional strong man, walking about the stage with an iron frame on which stood ten or a dozen men. Tradition has it that an unsuccessful attempt to increase the load to the unlucky number of thirteen closed his exhibitions, and led him to turn his thoughts to travel and exploration. Unlike most strong men, he had a head of Jovian nobility to look upon, and well furnished within. He was a man of brain as well as brawn, and a good fellow, too. I cannot close without paying my humble tribute to the fine educational work that Professor W. R. Lethaby has done at the British Museum. To him we owe much luminous interpretation of the architectural sculpture and the fragments of classical buildings there; to him also the contribution of a fragment attributed to the doorway of the Treasury of Atreus. He found it, lucky man, in the porch of a London house where it had stood for many years. You shall see it figured on page 3 of the most valuable guide to the Department of Greek and Roman Antiquities. This guide costs but one shilling, and was always worth ten times that sum. Now that the Museum is temporarily closed to us, the guide is worth yet ten times more to such as are grateful for small mercies: for it is copiously illustrated.

DIOGENES.

CORRESPONDENCE.

British Prisoners of War Book Scheme.

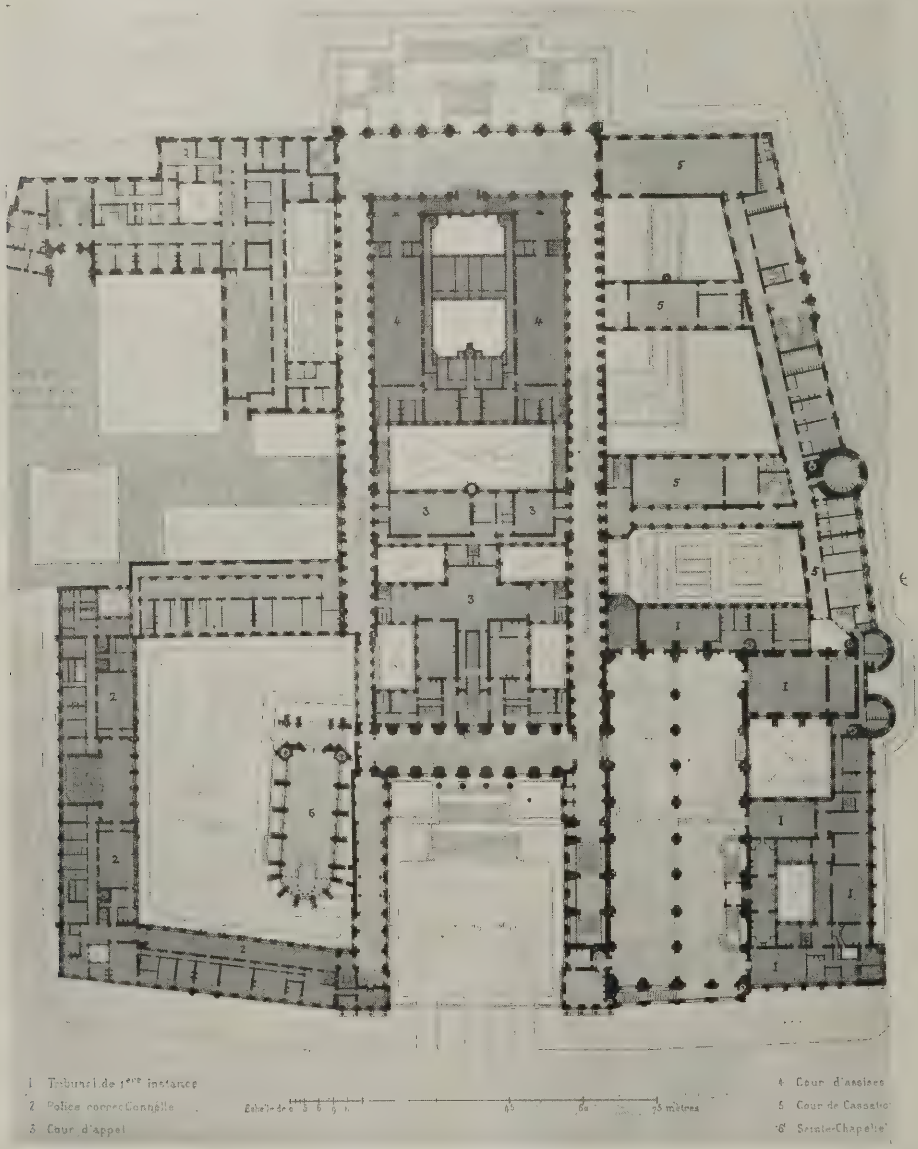
To the Editors of THE ARCHITECTS' AND BUILDER
JOURNAL.

SIRS,—For some time past the Society has bee supplying books from its technical library to Britis prisoners of war who are pursuing their studies certain subjects, such books being sent through th committee of which Sir Alfred T. Davies, of the Boar of Education, is chairman.

An interesting development so far as the society concerned is the receipt of a communication from prisoner of war in Germany expressing the thanks himself and of his companions for the books, whic have evidently been of much service.

There must be many architects who have duplicat or spare copies of architectural or technical books, an if they would care to send them to me for the purpos stated I shall be very pleased to see that they are de patched to the proper quarter. It would add to th value of the gift and the pleasure of the recipient the donor's name were inscribed on the fly-leaf of an books presented.

C. MCARTHUR BUTLER,
Secretary of the Society of Architects.
28, Bedford Square, London, W.C.



1, Court of First Instance; 2, Prefecture and Police Courts; 3, Appeal Court; 4, Assize Court; 5, Cour de Cassation, or Supreme Court; 6, Sainte Chapelle.

PLAN OF THE PALAIS DE JUSTICE, PARIS.

(*See page* 34 *and Supplementary Plates.*)

COTTAGE ACCOMMODATION, EQUIPMENT, AND PLANNING.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

WE shall now proceed to investigate those problems which arise in regard to the provision of suitable accommodation and equipment, nd to consider those practical questions which arise in egard to the working of the cottage plan.

An Awakening National Conscience.

In the oldest of cottages the minimum accommodaon was one room, but a gradual improvement in the atus of living of the lower classes has culminated o-day in a national recognition of the fact that three edrooms and a living room is the minimum accommoation that should be allowed. That the minimum ccommodation that can be allowed should include ree bedrooms is due to an awakening of the national onscience to the evil results of overcrowding, responbility for the prevention of which can no longer be ft to the individual, who, as a tenant of a one or two edroom cottage cannot, even in the most favourable rcumstances, always control the number of people ho may occupy his home.

The Minimum Accommodation.

To-day all housing reformers are agreed that it is ot only desirable, but essential, that no cottage be rected which does not include in its accommodation t least a living-room of 160 ft. superficial area, and ree bedrooms, of which one shall be as large as the ving-room. That is the minimum accommodation onsidered allowable to-day.

But the bedroom accommodation being twice that f the ground floor, it follows either that one of the edrooms be on the ground floor or that the difference e made up by the addition of a scullery and offices, as rder, coals, etc.

I have stated that this is the minimum accommodaon that housing reformers are agreed should be llowed, but in doing so it is important that you be nder no misapprehension as to what exactly is meant, nd I may say at once that this is neither a statutory nactment, an official ruling, nor a Government proouncement, but merely the agreed expression of pinion of housing reformers and of those who have ad experience in dealing with and who have investiated the conditions of the working man. I should dd, also, that it is a conclusion but recently arrived t, and that in the latest of housing schemes it is everyhere being acted upon.

That it is a possible proposition for universal and fficial acceptance has yet to be demonstrated, and this argely in view of the reticence that the State will need o exercise after the war in regard to encroachments n the freedom of the individual, and also in view of conomic questions that are involved.

Government Model Plans.

In a set of model plans of cottages issued by the Local Government Board in 1913, there was shown mongst six different types a plan with only two bedooms, of which the superficial area of the largest was nly 131 ft., and a living-room which measures only 3 ft. by 13 ft. But the pamphlet is out of date; and were it to be revised, which it no doubt very shortly will be, I do not think that there would appear a type f so small accommodation again.

Let me now add a word as to how it is that housing eformers are so determined in regard to the national cceptance of this irreducible minimum.

Three Bedrooms Essential.

Whilst it is recognised that a man and his wife and one child, or two sisters, or two brothers, can quite well be accommodated in a two-bedroom cottage, it is also realised that only under very exceptional circumstances can the occupancy be controlled. Cottages may change hands or receive additional occupants almost any day, and, moreover, it is not that such small cottages are unhealthy, but that by so limiting the accommodation, in certain cases overcrowding will ensue, and as a consequence immorality follow.

The Living-room.

Then as to the living-room or house place. This is where the whole house congregate, and in winter, at any rate, will cook and eat their food. It is uncertain if they will ever open a window, and for hygienic reasons, if not for convenience, the living-room should be not less in superficial area than 160 ft. Only the other day I was examining the living-room windows in a remote village in Lincolnshire of the type known as "Yorkshire lights," and without exception no window had been open for years, and every one was tightly painted up.

The living-room, as well as being a fair-sized room, should also be a comfortable room. It should be cosy and well lighted, and should have a pleasant outlook in a garden, and not on a scullery wall. The situation of its fireplace is also important; when possible it should be planned in such a position that it is not flanked on each side by a door.

Reasons for the Largest Bedroom.

The reasons that have induced housing reformers to insist upon the largest bedroom being not less than 160 ft. are that reasonable accommodation may be provided in this one room for a bed for the man and his wife, a crib for their young daughter or son, and a cot for the baby. And that there be two other bedrooms is, of course, that separate accommodation be found for the elder children of both sexes.

Accessory Rooms and the Parlour Question.

We now come to the question of providing accessory rooms. In the first place, let us consider the parlour or scullery, or both.

In the provision of extra rooms beyond the irreducible minimum, it is not now a question of improved sanitation, better hygienic conditions, or the prevention of overcrowding; it is just a question of providing for that first glimmer of polish which follows from a rise in the social and educational status of the working man. The provision of a parlour is at bottom a pronounced democratic move, and may perhaps be regarded as a step in the uplifting of the lower class. Having said this, however, we are reminded that the provision of a parlour is not always an economic proposition, and, even assuming that it was, the question still arises as to whether fundamentally, and apart from conceptions of civility and polish, which in modern life are usually somewhat artificial, it is not a sounder proposition to have the family live in one superlatively comfortable and very commodious room, rather than in one of average comfort and dimensions with a parlour in addition, a room that is never entered in six days out of seven.

I think that the general feeling of those who have had most to do with the building of cottages is that when possible it is desirable to provide a parlour, and there is almost a universal tendency on the part of the working man, who is every day becoming more affluent, to demand one.

This hankering after a parlour on the part of the working man is more than superficial. and is intimately connected with the artificial conditions of modern existence and of the artificial world in which we live.

And then the parlour is the sacred temple wherein are preserved the household gods and ancestral heirlooms, the school prizes, the wedding presents, and all that connects the family with its proudest associations. It is in this room that the daughters of the family woo undisturbed the young men of their choice. It is here that landlords, or their agents, doctors and ministers, and other visitors can be received with dignity, and with an approach to equality in social position. Altogether we of the middle class have no right to discourage this unquestionable demand for a parlour on the part of the lower class, provided they can afford to have one.

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* First instalment of the fifth of a series of six lectures delivered at Univerity College, London.

The practical solution of the problem is to provide a parlour which is a very small room rather than no parlour at all, always remembering that under no circumstances should the living-room be reduced below the superficial area given.

The Scullery Question.

But let us now consider the question of providing a scullery. The scullery is essentially an annexe of the living-room, wherein to do all the menial duties that have to be performed in connection with the preparation of and clearing away after meals. Before the advent of the three-roomed cottage, the sink was often placed in the kitchen, but with the three-bedroom cottage the scullery becomes, even if for no other reason, a necessary extension of the ground floor. Until quite recently clothes-washing was done in a wash-house which was an addition to the main block, and in many parts of England, and more especially in the North, this arrangement still holds good; but it is fast becoming a universal system to place in the scullery not only the wash boiler, but also the bath.

An essential condition of a scullery is that it be not too large nor too comfortable, else, when there is no parlour, there is always a danger that the scullery may be used as a living-room and the living-room converted into a parlour—a misappropriation of the accommodation induced by the assumption of a social status which the means of the poorest cannot justify. This misuse of the living-room and scullery cottage is often due to this type of cottage being built in too close association with others of the parlour type and the social difficulties which arise out of the feeling of being outclassed.

When a sufficient number of cottages of the scullery-living-room type are congregated together, there is not much fear of this misappropriation, and the scullery will be used only for the purpose for which it was designed.

Three Bedrooms Essential.

Then with regard to the bedrooms, it has already been stated that no cottage should have less than three bedrooms, of which one should be at least 160 ft. superficial in area. Of the other two it is better that they be of different sizes, and the smallest should not be less than 6 ft. 6 in. in width and not less in superficial area than 60 ft.

Working-class Flats.

In urban housing there is a type of two-storey working-man's flat, very common in Newcastle and in other places in the North of England, and proved very successful on the Duchy of Cornwall Estate, in South London, which is a sort of half-way house between a block-building type of flat and a cottage. It is generally described as a maisonnette. In this type of flat each occupant has his own separate front door and back garden, and it is more economical to erect per foot cube than a cottage with similar accommodation.

No one now recommends the erection of tall blocks of residential flats for the working classes. If well planned, with sufficient space about their inner courts to provide a really pleasant place to look upon, and if of not more than three or at most four storeys in height, under certain conditions they may be regarded as admissible. But with that popular interest in gardening which has resulted from the strained conditions of the war, and which is one of the good habits it has driven us into, I don't think flat life for the working classes is a thing that we ought at the present time to encourage.

In my experience the tall building provides no solution to the difficulty of paying the ground rent in an urban area. The necessity for providing thicker walls and more substantial staircases, which are expensive, practically equalises the saving effected by crowding on the land.

True it is that more people can be accommodated in a given area in four and five-storey buildings than in cottages, but a better solution of this problem is to provide improvements in public conveyance, whereby a daily journey will convey the would-be occupant of a block dwelling to a cottage in cheap and open land elsewhere.

Difficulty of Squaring Practice with Theory.

Let us now consider working arrangements. We have to remember that the most scientific methods that can be devised, and which technically may be perfectly practical in application, are not always possible—for two reasons.

The first is that they demand too sudden changes in municipal organisation, municipal methods, and municipal services, and, in the second place, they demand such a radical and sudden change in the traditional methods of the working class, who in regard to such matters are very conservative.

Centralised or Co-operative Methods.

Probably, if these two difficulties could be overcome, centralised methods extended, and the latest of scientific inventions applied, economies could be effected, labour in working the operations of cooking, heating, and cleansing saved, and a degree of comfort added, hardly dreamed of at the present time. Dust and also refuse might be pumped away pneumatically down cast-iron pipes. Coal gas might be used, not only for cooking, but also for warming and to provide automatically a constant hot-water supply. As regards washing, this would be done at a central laundry, and lighting universally by electricity. But all this is at the moment not feasible, for the reasons stated, so we must needs fall back on methods which, if more costly in the long run and more laborious for the time being, are more traditional and perhaps more homely.

Kitchen Equipment.

The domesticity of the cottage is still, as it always has been, centralised around the kitchen fire, and it is an open question as to whether all the devices in the way of electric cooking and heating, gas stoves and radiators, or coke stoves, will ever succeed in ousting the kitchen fire.

It is not my intention to go into the question of considering the relative merits of different types of stoves and ranges, but I would point out that the kitchen range should always be supplemented by some arrangement for gas cooking in the summer.

Some architects advocate a type of range which on one side is actually a gas fire, and the reason for such a combination is in order to be able to dispose of the gas fumes up the kitchen flue. Personally I am inclined to think that this arrangement tends to make the operation of cooking by gas ungetatable: such a position is usually a dark corner. I think the gas stove is best fixed in the scullery, and it is quite an open question as to whether a gas stove in the scullery, which is not a living-room, really needs a flue.

(*To be concluded.*)

WAR · BVILDINGS · SECTION

OLD WORK IN RELATION TO THE HOUSING PROBLEM.

HE housing competitions now being conducted under the ægis of the B.A. have revived a considerable unt of interest in vernacular domestic itecture, particularly that of the orgian" period. The houses that erected during the eighteenth century a serene and homely beauty which, ts orderliness and unobtrusiveness, is to be wonderfully expressive of typical English home life. The old builders, working in the traditional manner of their neighbourhood, and using simple local materials, produced work of a most charming character; and to-day, after the lapse of more than a century, and after countless unsuccessful attempts to evolve something new, we find ourselves reverting almost unconsciously to the simple work of our great-grandfathers for a solution of our great modern housing problem. In view of the attention which is being given to the whole question of housing, the accompanying illustrations will be studied with more than ordinary interest. The examples are selected at random, and are shown not as perfect specimens of their kind, but rather for the purpose of drawing attention to the excellent qualities of indigenous work—qualities that would not

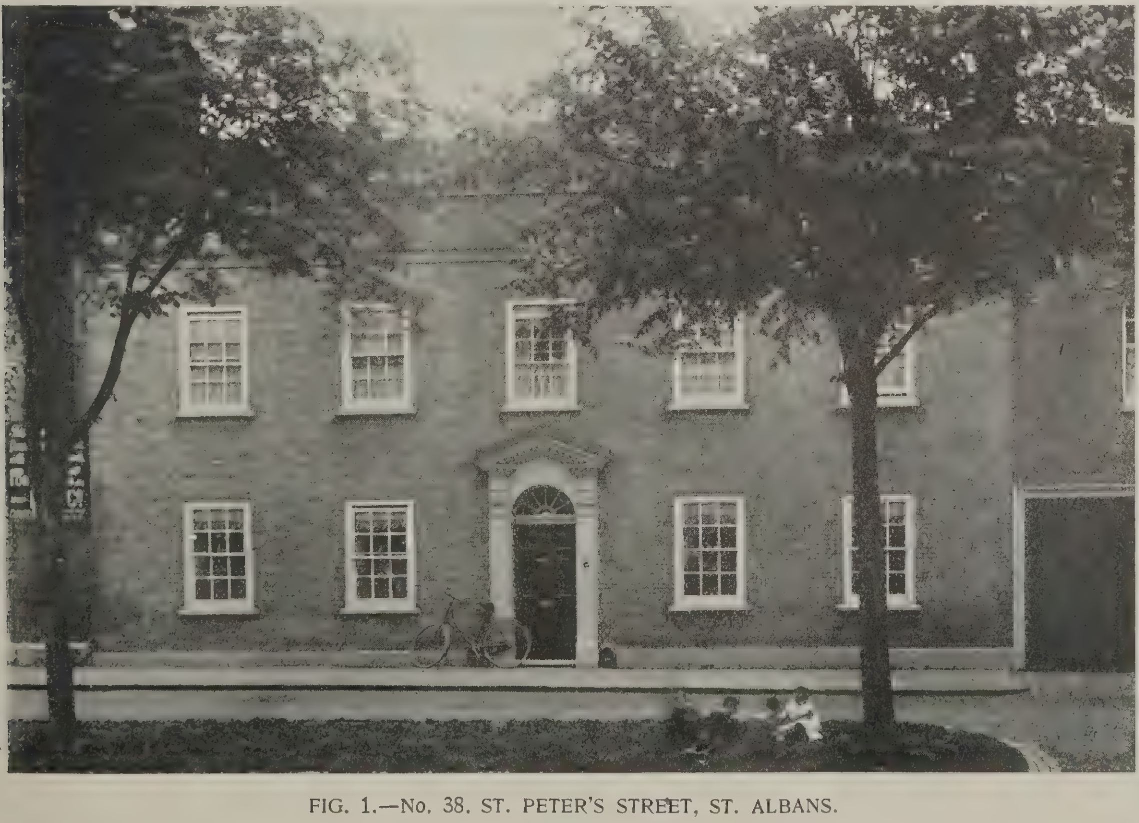


FIG. 1.—No. 38, ST. PETER'S STREET, ST. ALBANS.

be amiss in the houses of twentieth-century democracy.

Fig. 1, No. 38, St. Peter's Street, St. Albans, shows the costume of the 1780 period fitted with care to an older house, presumably because the owner wished to be in the fashion. This house-front is successful because of the faultless proportions of the windows, and the magnificent foil to the latter provided by the entrance doorway.

Fig. 2, from the West Country, is an example of an earlier period. Without any definite architectural pretensions, it yet has a character that shows it to be something more than mere mechanical building. There is a peculiar attractiveness about the large, unadorned spaces of wall surface, relieved by the three-light lattice windows.

The range of six cottages known as Albion Terrace, in Dagnall Street, St. Albans (Fig. 3) dates from the early years of the nineteenth century. In this pleasant group proportion plays a notable part. The treatment of the raised parapet is good, as it affords scope for a name tablet. The outside frames to the windows, recurring at such a late date, should be noted as evidence of the respect paid by the builder to local tradition.

Fig. 4 shows an interesting group of cottages which underwent addition towards the end of the eighteenth century, but which, notwithstanding, have a charm entirely their own. The careful arrangement of doorways and windows gives to these little elevations an attractiveness seldom encountered in work of so small a scale.

With regard to the practical aspects of the housing question, these have been very well summarised by Mr. Keith D. Young in a letter recently published in the "Architectural Review," from which we quote somewhat extensively.

One of the most important points (says Mr. Young) in connection with the building by-laws which, in their present form, do so much to strangle sensible building, is that of the height of rooms. And in this connection it seems to me that there is some misconception with regard to the powers of local sanitary authorities. The Local Government Board model bye-laws contain no reference to the height of rooms, and in the annotated bye-laws a note will be found to the effect that the Public Health Act, 1875, does not empower local authorities to make bye-laws regulating the height of rooms.

I have just examined thirty-nine sets of local bye-laws, and I find that in seventeen only is there a bye-law dealing with the height of rooms. Seven of these fix 9 ft. as the minimum height, eight fix 8 ft. 6 in., and the remainder 8 ft.

There can be no doubt that, as pointed out by Mr. Macartney, Mr. Voysey, Mr. Baillie Scott, and other architects of experience in this class of building, within certain limits of convenience a room of lo
altitude is more easily warmed and vent
lated than one of greater height. Perso
ally I should be content with 7 ft. 6 in.
but should regard 8 ft. as a maximu
height for the kind of rooms we are co
sidering. The obvious advantages gaine
by adopting a lower standard of height ar
increase of floor area, a decrease in th
height of the staircase, and better venti
tion.

Height is wanted for headroom, and e
cessive height in proportion to floor spa
is not only useless but mischievous. Wh
is wanted is adequate provision for the c
culation of air, and sufficient but n
excessive window space.

The question of the use of materia
other than ordinary building bricks f
walls is rather more difficult to deal wit
The question arises, will a 2-in. hollo
brick rendered on the outside and pla
tered inside form as good a protectio
against variations of temperature as a
11-in. hollow wall built of ordinary brick
and having a cavity of 2 in.? I certain
cannot think that a solid ferro-concre
wall 3 in. thick can be a satisfactory mat
rial for an outside wall. It ought not to
difficult to solve a question like this if onl
we had some properly equipped body
make experimental researches into this an
many other questions.

One other point I will refer to: the pos
tion of the sanitary office. In some di

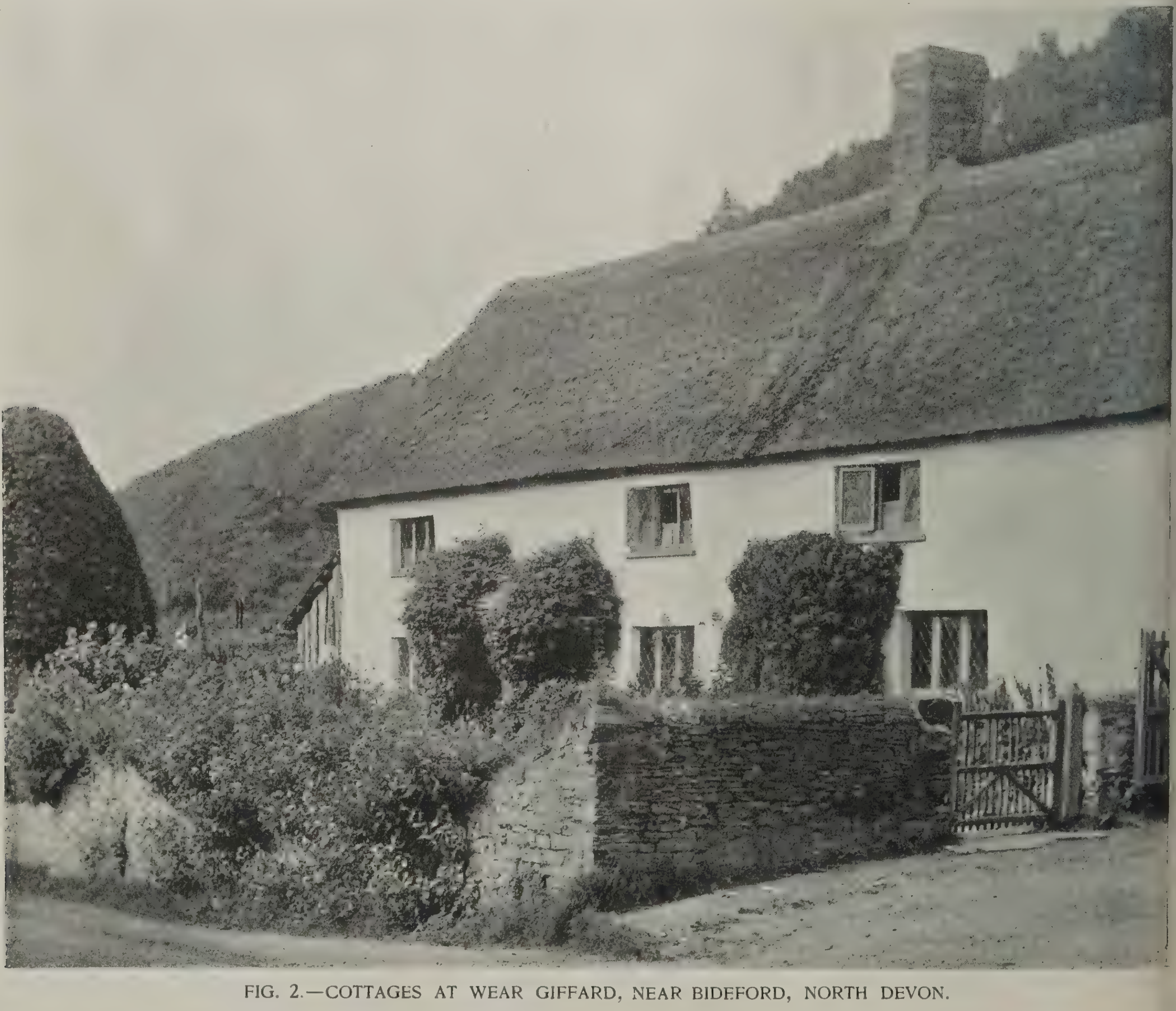


FIG. 2.—COTTAGES AT WEAR GIFFARD, NEAR BIDEFORD, NORTH DEVON.

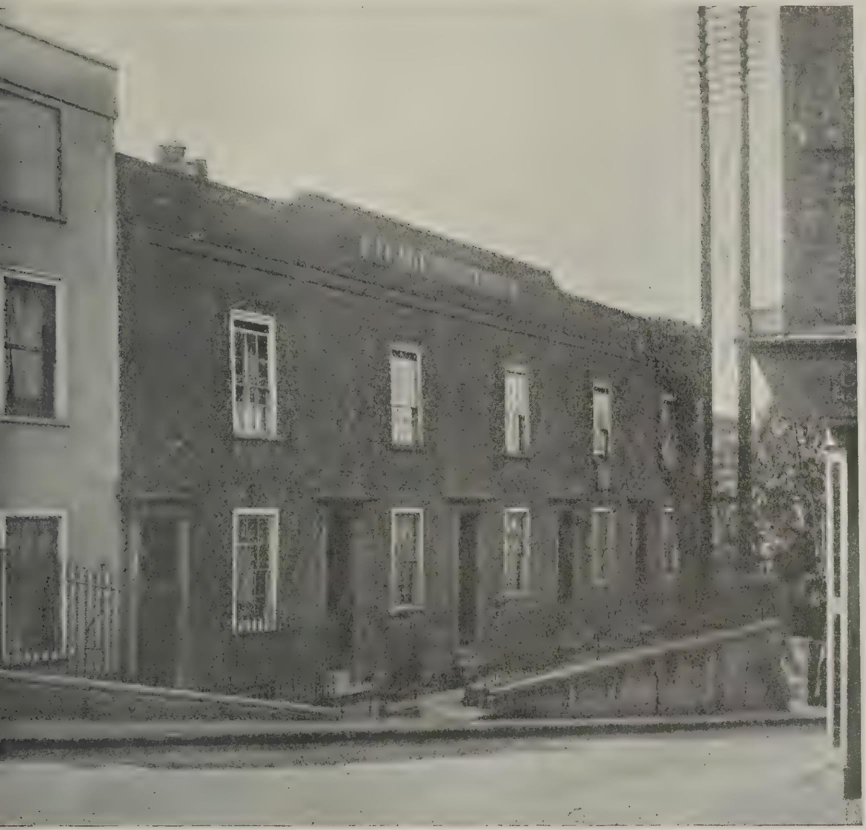


FIG. 3.—ALBION TERRACE, DAGNALL STREET, ST. ALBANS.

tricts I have found a regulation in force requiring a minimum distance of 10 ft. between the back wall of a house and the earth closet. I can find no authority for this restriction either in the Public Health Act or in the model bye-laws, and I can see no reason for its enforcement. A properly constructed earth closet, with proper means of removing the receptacle from outside, can and should be a part of the house, and if not approached from inside the house ought to be accessible under cover.

The most serious defect in "back-to-back" houses which are so common in many Northern towns is the position of the w.c.s. As these houses are usually planned, the provision of a w.c. inside each tenement is impossible, and so the necessary offices are grouped in a backyard. The publicity and inconvenience of access inherent to this arrangement prevents the proper use of these offices, especially in the case of children, and the result is seriously insanitary conditions inside the tenement.

Back-to-back houses, it need hardly be said, we regard as entirely obsolete. They do not, in fact, come into the question at all, except in so far as it may be necessary to improve those that are already in existence, by rendering them slightly more tolerable on some such lines as Mr. Young suggests. He mentioned this type of house, no doubt, merely as an illustration of what to avoid. Back-to-back houses still have their advocates, whose professed admiration of them, however, may usually be traced to vested interests. In our opinion, frequently expressed in this Journal, this type of dwelling is indefensible.

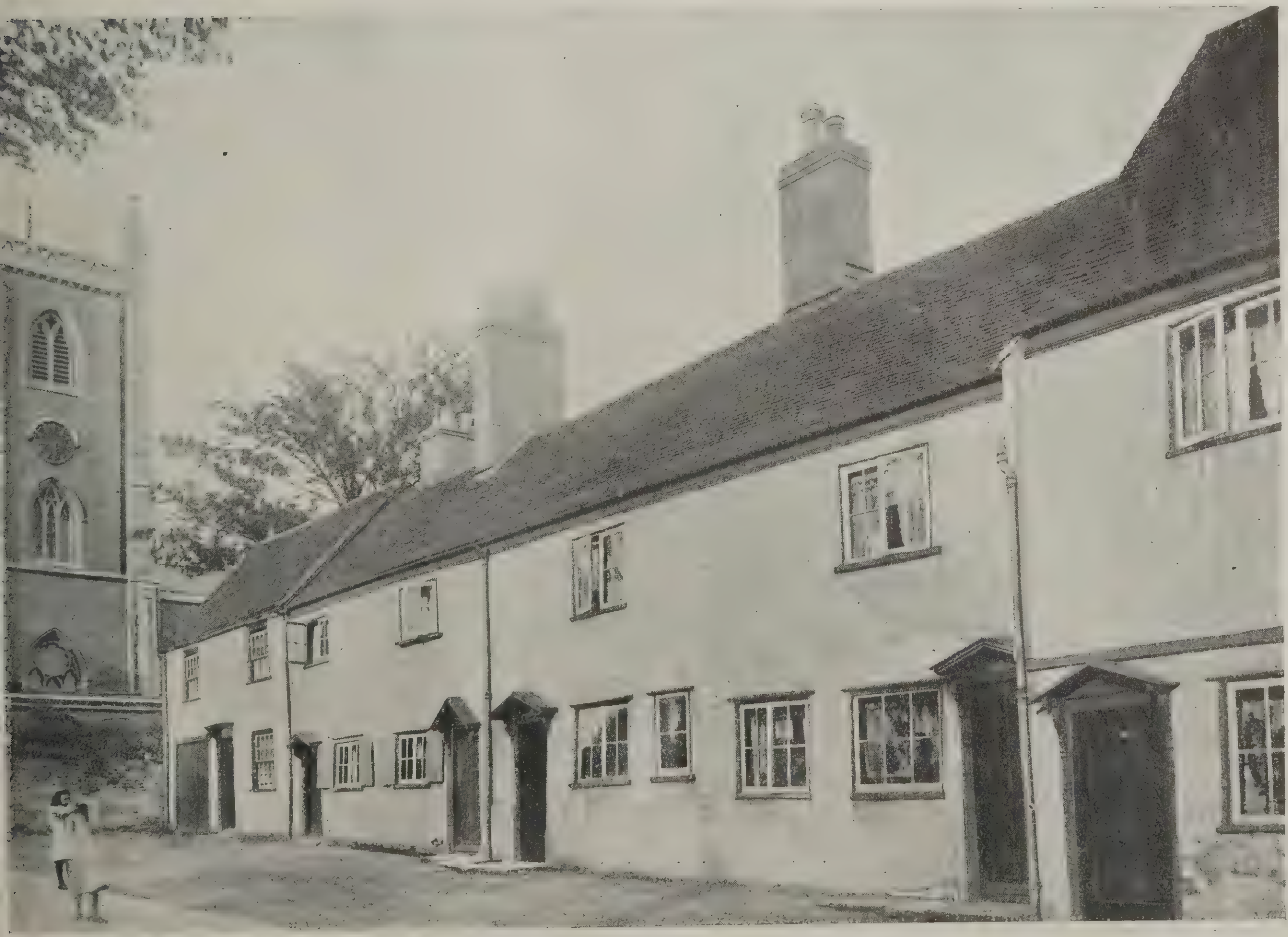


FIG. 4.—GROUP OF COTTAGES ADJACENT TO ST. PETER'S CHURCH, ST. ALBANS.

NEWS ITEMS.

Strike at Scarborough.

A few weeks ago the Scarborough builders' labourers came out on strike for more money, and now the bricklayers have "downed tools" in sympathy.

Trade Unionism in Johannesburg.

A ballot of trade unionists in Johannesburg connected with the building trade has resulted in an overwhelming majority in favour of refusing to work with non-unionists.

Increasing Demand in London for Flats.

House agents lay stress in their reports on last year on the increasing demand for flats. Substantial premiums have in some cases been obtained for comparatively short leases, especially where service is provided.

"Aquarep": a Correction.

We regret that the wording of the heading to a paragraph concerning a development in the firm of Messrs. Damp-Proofing, Ltd., published on page xiii. of last week's issue, should have given the impression that "Aquarep" is a new material. This excellent waterproofing compound, as all our readers are aware, has been established for some considerable time. "Aquarep" is, in effect, an improvement on "Ceresit," which was in extensive demand and had acquired a high reputation.

Heating an Historic House.

Heating installations have recently been completed at Nailsea Court, Somerset, the historic residence of Commander C. E. Evans, R.N.V.R. Great care has been taken to avoid disfiguring any of the rooms, and the architect, Mr. Arthur Stratton, F.R.I.B.A., personally superintended the execution of the work, which was carried out by the estate hands in conjunction with Messrs. J. Wontner-Smith, Gray, and Co., Ltd., heating engineers, of Sun Street, Finsbury, E.C.

Reinforced Concrete and the Scarcity of Timber.

Our shipyards are not the only places where reinforced concrete can be used with advantage. Railway companies are finding it a useful substitute for structures hitherto built of wood or iron. In the scarcity of timber, which is becoming more and more felt, the new substitute comes as a great boon. Signal posts, railway sleepers, window frames and sills, name boards, and telegraph poles have all been erected with reinforced concrete, and the adaptation of this material to these purposes has proved an unquestioned success. The tall signal and telegraph poles are reported to have withstood the recent storms in a remarkable manner.

Wages Increase at Darlington.

The Darlington and District Master Builders' and Allied Trades' Association have received a deputation from operatives representing the joiners, bricklayers, plasterers, wood-cutting machinists, and builders' labourers in support of an application for an advance of a halfpenny per hour. The employers agreed to a halfpenny per hour advance, thus bringing the rate for the skilled trades to 1s. 1d. per hour, and that of the labourers to 10d. per hour, equal to an advance since the commencement of the war of 14s. 7d. and 16s. 8d. per week, according to grade. The rates for apprentices was also advanced by a halfpenny per hour, boys now starting at 8s. 4d. and finishing at £1 0s. 10d. per week.

Aberdeen Granite Trade.

For the past year the value of the granite exported from Aberdeen to America was only £2,390, compared with nearly £30,000 in 1914. Indeed, in the palmy days of the American trade the value of the exports was frequently as high as £80,000 and £100,000. The Canadian export trade has suffered similarly. The total quantity of polished granite shipped from Aberdeen harbour was only 3,743 tons, compared with 6,368 tons in 1916. During the year only 672 tons of foreign granite was imported into Aberdeen, compared with from 20,000 to 30,000 tons in the pre-war days. The latter figures indicate the extent to which Aberdeen—one of the principal granite centres in the United Kingdom—is dependent on foreign quarries for the supply of raw material.

Honour for Y.M.C.A. Building Department Secretary.

The Building Departmental Secretary of the National Council of Y.M.C.A.s, Mr. George W. Rankin, of Bristol, has been made a member of the Most Excellent Order of the British Empire. The world-wide building activities of the Y.M.C.A. in its war service are well known, and it will be an interesting account of pioneering and constructive adventure that Mr. Rankin will be able to unfold when his duties permit. With a small but able staff, Mr. Rankin has succeeded in overcoming formidable obstacles such as only those actually engaged on such work under war conditions can appreciate. He has had the close co-operation of Mr. S. Phillips Dales, a Member of the Society of Architects, whose versatility has found ample scope in his capacity as consulting architect to the department, and whose knowledge of Y.M.C.A. methods and work in pre-war days has stood him in good stead.

Restricting Shop Lighting.

The first order has just been issued under the new Defence of the Realm Regulation which empowers the Minister of Munitions to restrict the use of any form of artificial light. On the ground that "it has become necessary for the maintenance of the supply of power for the production, repair, and transport of war material and for other work necessary for the successful prosecution of the war to restrict the use of lights for certain purposes in the area," Mr. Churchill has decided that in the County Borough of Derby no light shall be used in any shop front on any week-day, other than Saturday, after 3.30 p.m. or during any period of abnormal darkness occurring at an earlier hour. The prohibition does not extend to any light approved by the chief officer of police as necessary for the serving of customers inside a shop, or to any light used solely for illuminating a small sign in a shop front to indicate to persons outside that the shop is open for the serving of customers.

Architectural Association of Ireland.

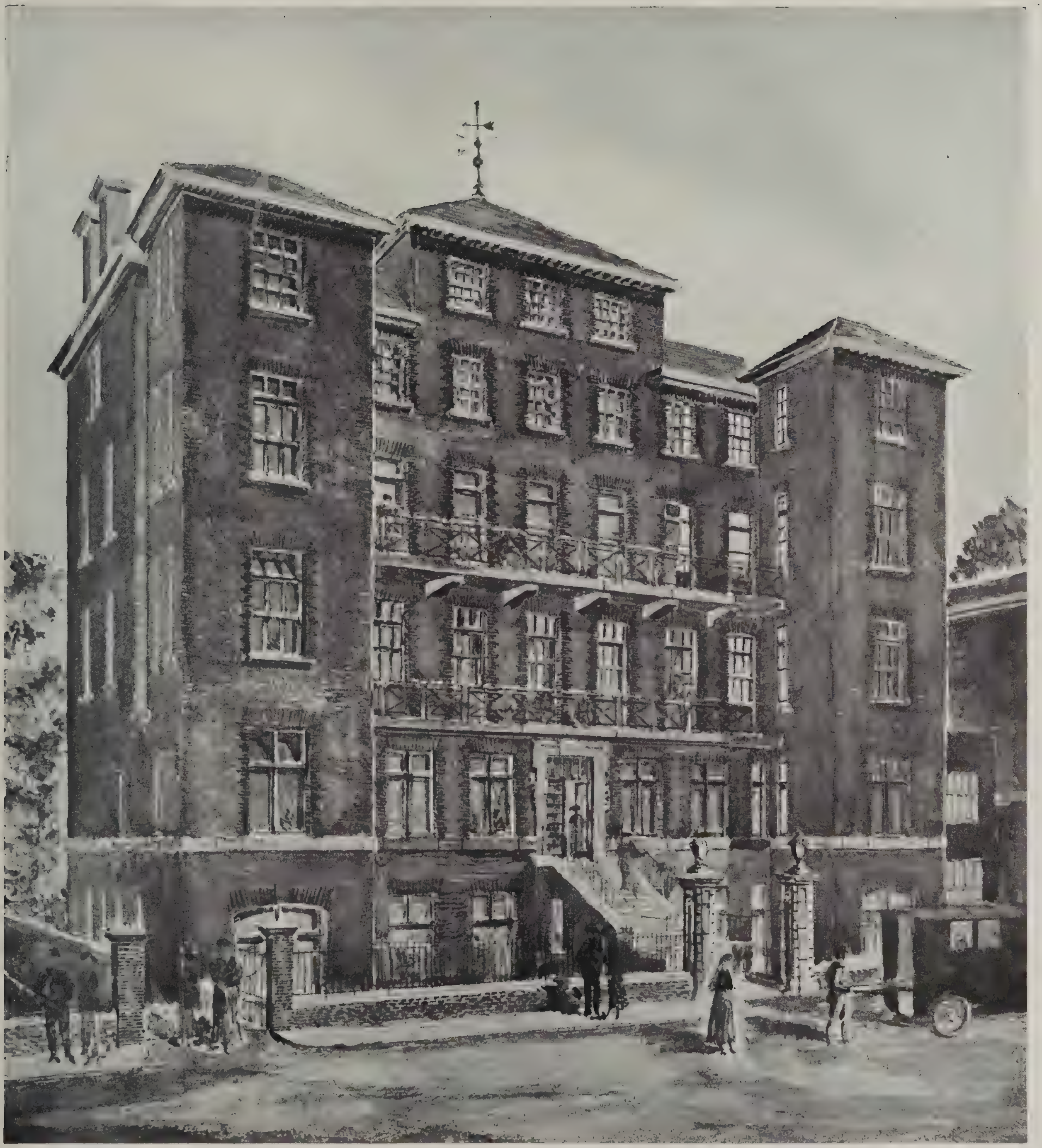
Mr. W. Kaye Parry, F.R.I.A.I., delivered a lecture on "The Architect's A B C," at a meeting of the Architectural Association of Ireland held at the offices, South Frederick Lane, Dublin, Mr. Kaye Parry, in the course of his lectur dealt with the organisation and manag ment of an architect's office, emphasisi the necessity for the cultivation of moder methods of work and the adoption of businesslike system. He explained h correspondence could be best handle the registration of letters received a despatched and the filing of letters. H also outlined the best methods of usi diaries and keeping records of work don Proceeding, he described the classific tion and filing of catalogues so as to faci tate future reference; and went on to de with the preparation of drawings and t best method of keeping them so that th could be easily found. Having indicat the simplest way of keeping all the pape connected with works in progress, he co cluded that all these details constituted t A B C of an architect's work, and th order and system were invaluable success were to be achieved.

Proposed Memorial to Irish Regiments

An influential meeting of representativ of the Irish regiments was held at t Mansion House last week, under the pre dency of the Lord Mayor, to promote memorial in Westminster Cathedral their comrades who had fallen in the wa The Duke of Cannaught, it was stated, h become president and patron of the mo ment, and Field-Marshal Viscount Fren and General Sir Bryan Mahon vi presidents. A chapel has been offered Westminster Cathedral to the memory the dead of all the Irish regiments, ir spective of creed. It is proposed that ea regiment shall have its own marble tab and its own Liber Vitæ (to be kept in a r ceptacle in the chapel), containing t names of the fallen. On the proposition the Earl of Shaftesbury, the officers prese agreed to support the scheme as o among many for perpetuating the servic of the gallant Irish, subject to the approv and confirmation of their respective reg ments. The cost of the scheme, it was r ported, would probably amount to abo £10,000, and it was confidently anticipat that this would be forthcoming.

Dublin Art Gallery Site.

Dr. MacDowel Cosgrave contributes the current issue of the "Irish Build and Engineer" an article in which he su gests that the efforts to gain the Lane b quest pictures for Dublin would strengthened if a plan for a modern a gallery to hold them and the Clonm House collection was adopted. If such plan were made part of a memorial to t gallant Irishmen who have fallen in t great war, he thinks it would be easy carry out. As to site, Dr. MacDow Cosgrave says the raised ground at t north end of the Rotunda Gardens wou be an ideal spot, easily accessible from parts of the city. It affords a comman ing site on all four sides, and yet is fr from city noise. The gardens are a sour of revenue to the Rotunda Hospital, b a capital sum would make a precario income secure, and ought to be acceptab to the Governors. His idea would be purchase the upper terrace of the garden and turn most of it into a public par which is badly needed in this part of Du lin; the memorial and galleries to be bui in the centre, close to the top of the slop an open colonnade with wrought ir panels completing the background either side. Great interest would be add to this site from its facing Charlemo House, once the home of the finest a collection in the city.



CURRENT ARCHITECTURE (SERIES IV.). XLIV.—THE LONDON JEWISH HOSPITAL, STEPNEY GREEN.

EDWIN T. HALL, F.R.I.B.A., AND E. STANLEY HALL, M.A., A.R.I.B.A., ARCHITECTS.

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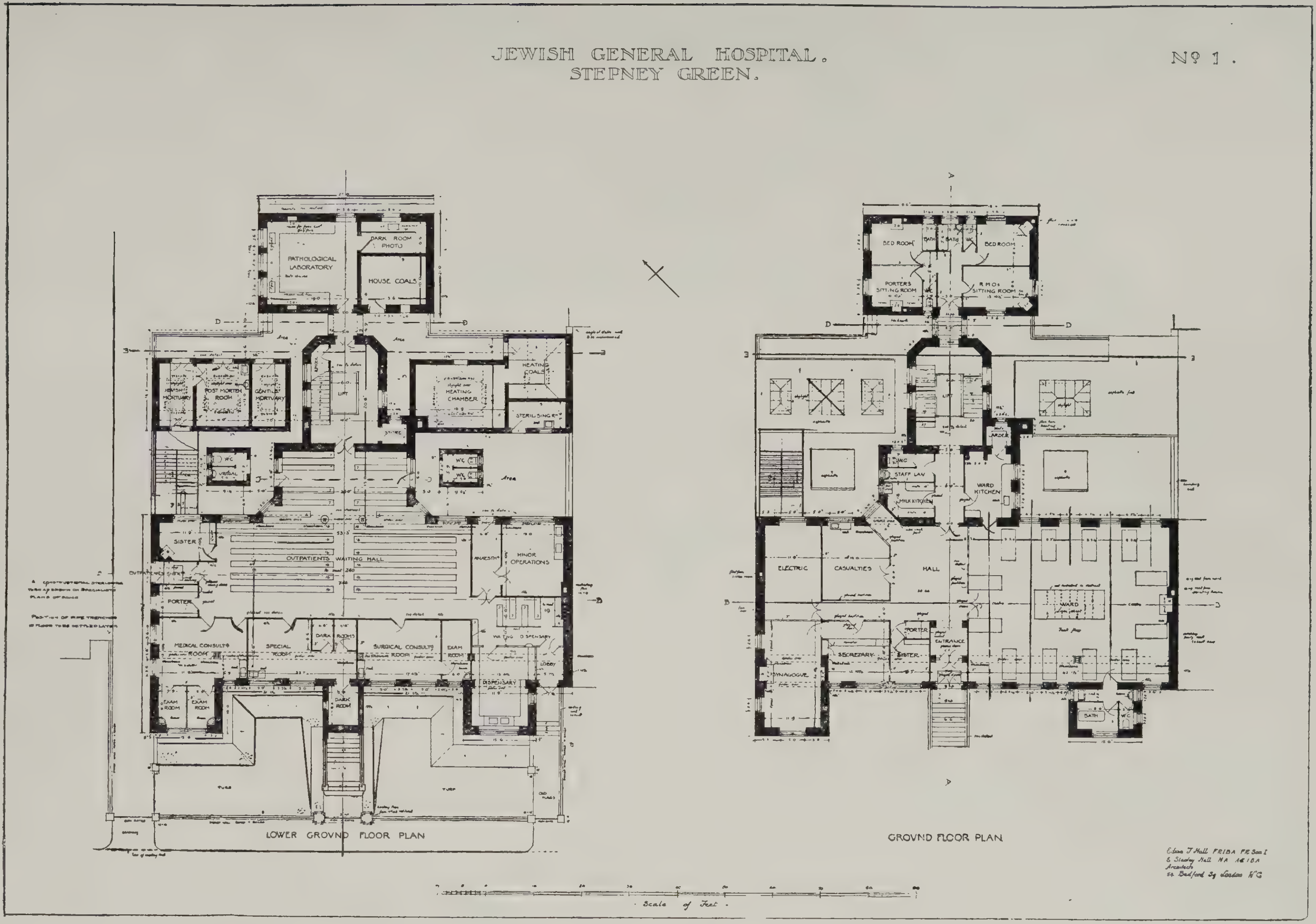

CURRENT ARCHITECTURE (SERIES IV.). XLV.—THE LONDON JEWISH HOSPITAL, STEPNEY GREEN: PLANS.

EDWIN T. HALL, F.R.I.B.A., AND E. STANLEY HALL, M.A., A.R.I.B.A., ARCHITECTS.

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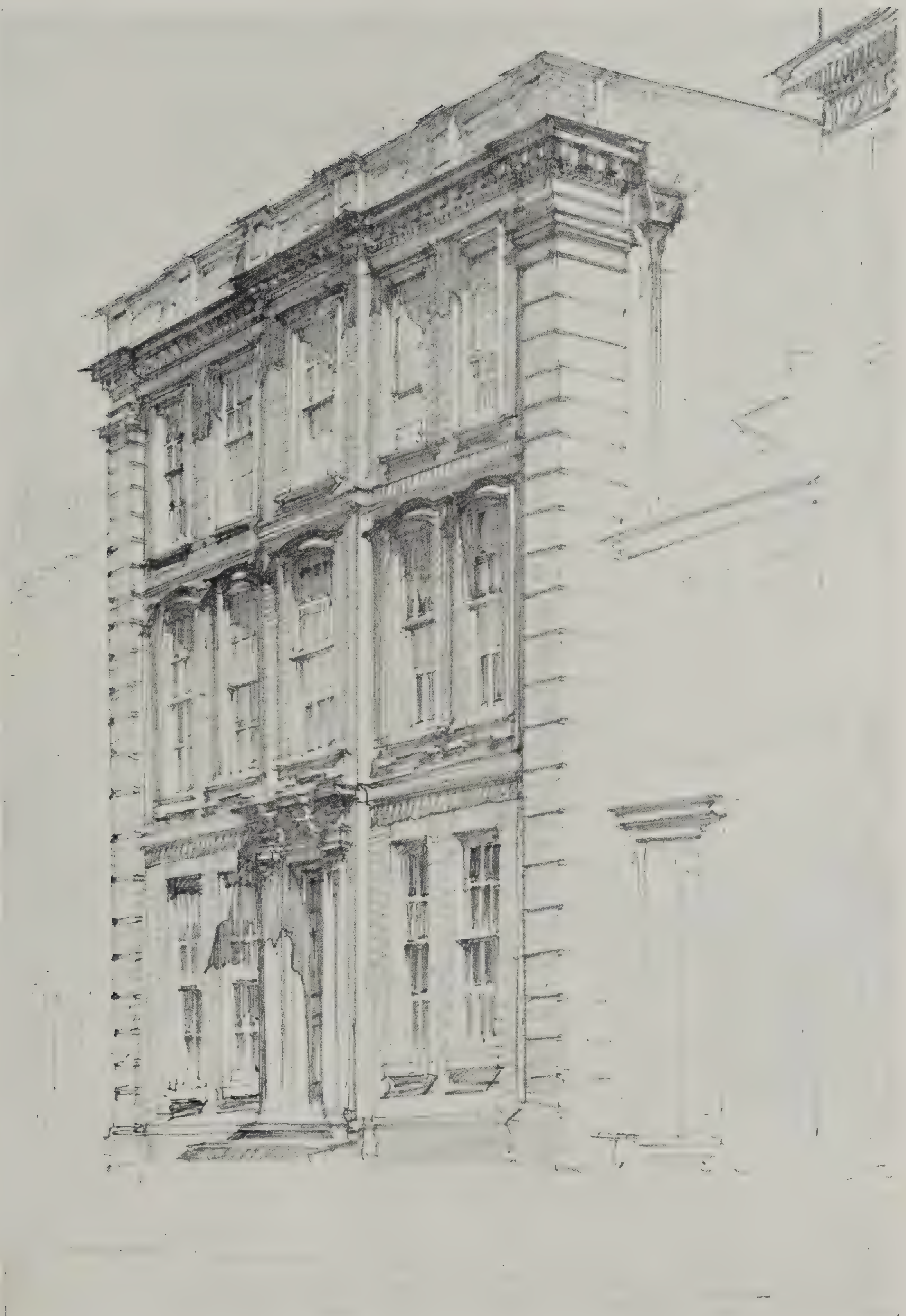

ARCHITECTURAL DRAWINGS AND SKETCHES. X.—WILMER HOUSE, WEST STREET, FARNHAM.

From a pencil drawing by Harold Falkner.

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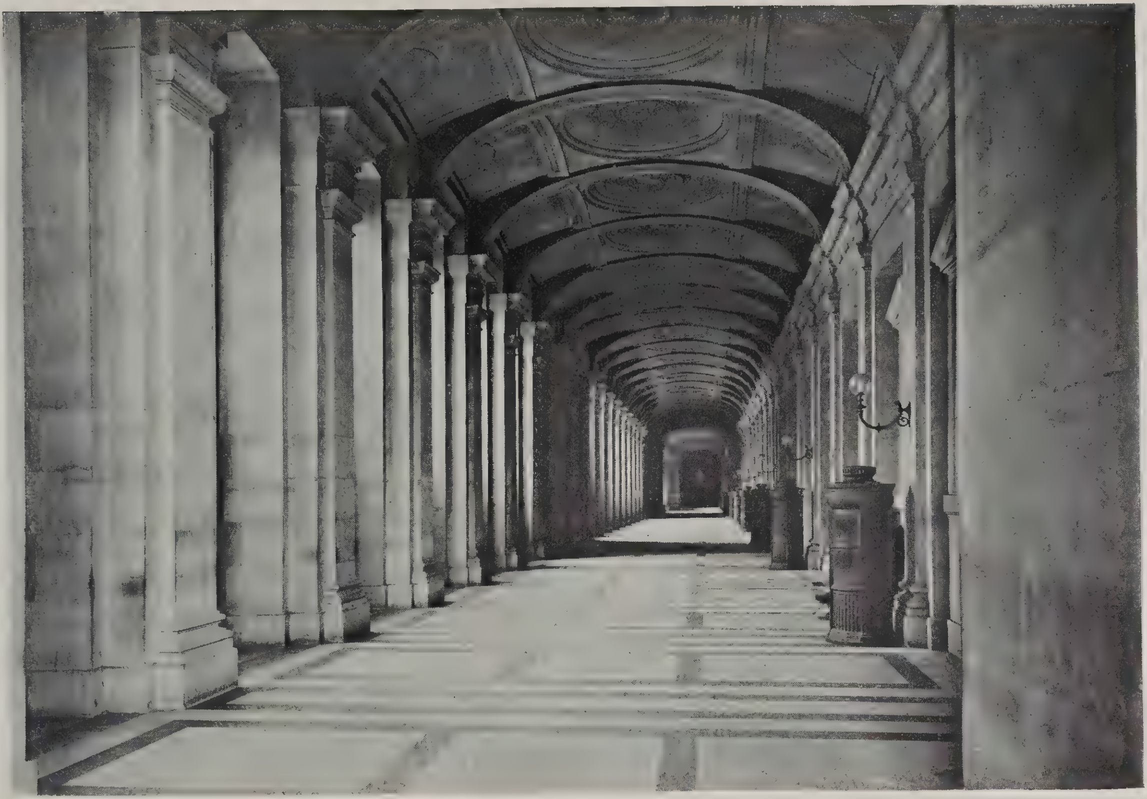
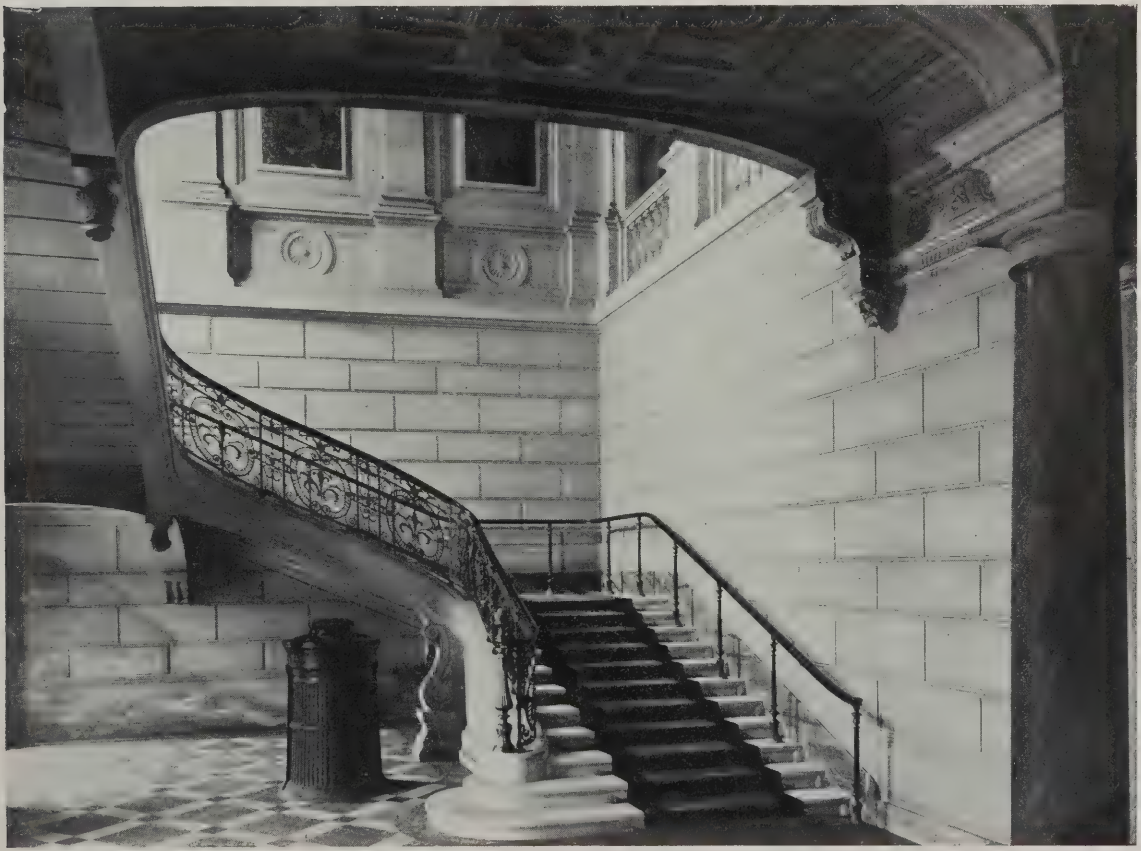


One of the long connecting corridors, from east to west.



Grand Staircase, Cour de Cassation.

MODERN FRENCH ARCHITECTURE. XV.—THE PALAIS DE JUSTICE, PARIS.

J. L. DUC, ARCHITECT.

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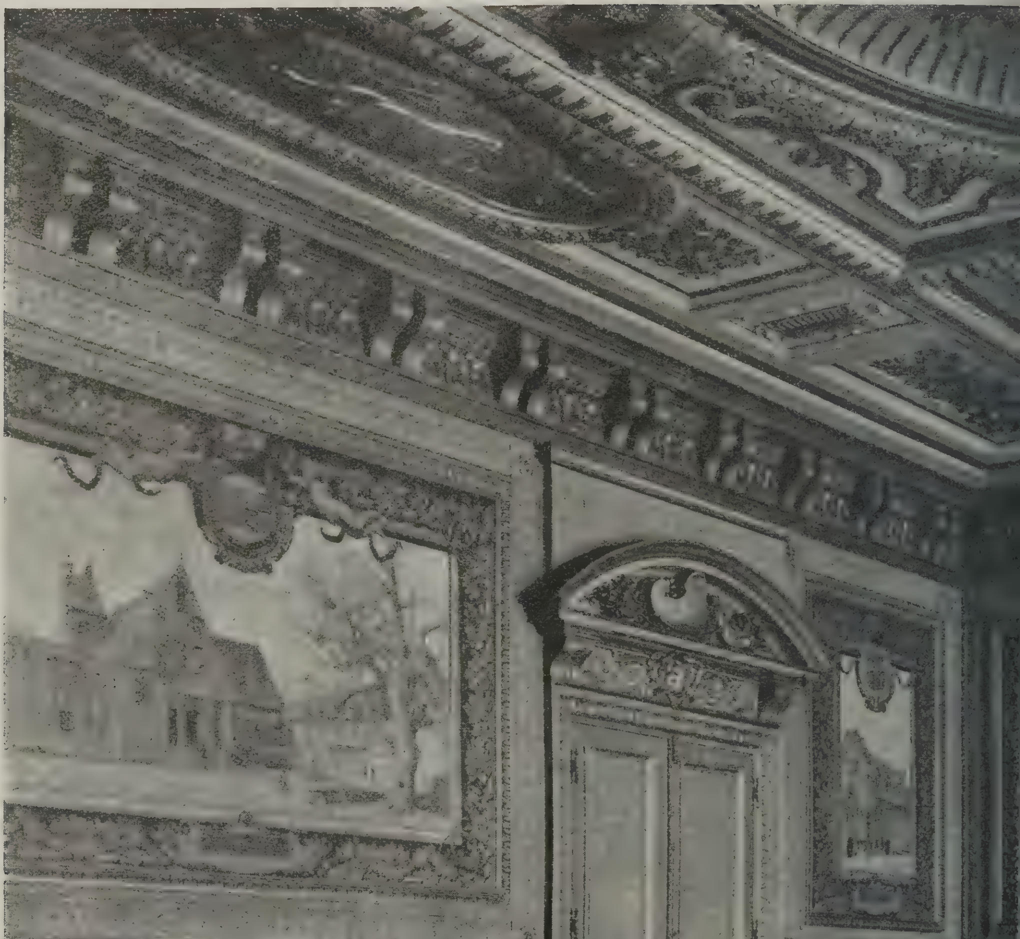
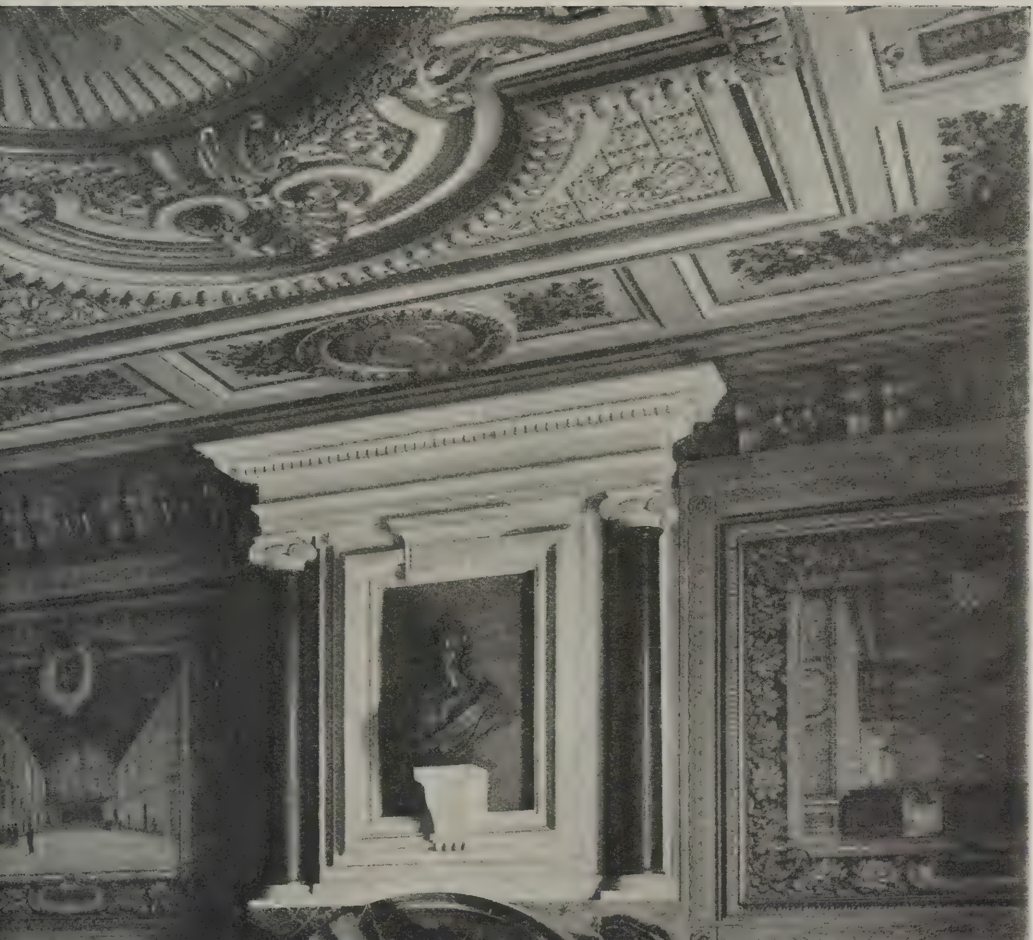


MODERN FRENCH ARCHITECTURE. XIV.—THE PALAIS

M. COQU



USTICE, PARIS: COUNSEL'S ROOM, COUR DE CASSATION.

ARCHITECT.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

JANUARY 30, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1204.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause wastage of effort and materials.

SINCE Menenius Agrippa propounded the fable of "the belly and its members," there has been nothing quite so apposite as Professor F. M. Simpson's similitude of concrete and unity. The Institute he likened unto a block of concrete, not very arge, but homogeneous, and capable of exerting and resisting pressure. Architects outside it are unmixed matrix and aggregate. "Any effort made by any one atom is personal and detached. It can possess but ittle weight, and may be counteracted by the effort of another atom. Even if these atoms join together into a number of small blocks, the influence that can be exercised by each block still remains small and subject o counteraction. But if all atoms attached themselves to a central block, not only would the size of hat block be more than doubled, but its power to resist interference or encroachment, and its ability to exercise pressure in the direction of extending its rights, would be increased proportionately to a still greater extent." It is very pretty, though rather overelaborated. Its short form, "union is strength," is a onic tabloid that, becoming more effectual by dilution and diffuseness, does some despite to the principle of unity. And what is an "atom"?

* * * *

It was "Unity of the Profession" that was the subect of the paper in which Professor Simpson elaborated the concrete-block theory. Once upon a time here flourished an excellent little club called "The Cemented Bricks." It had nothing to do with building n the ordinary sense; but its title is recalled as in some measure forestalling Professor Simpson's illustration of unity. But it was hardly necessary to insist on the benefits of unity, the real question being how to secure t; and a sound constructive policy for the attainment of this object is yet to seek. On this point Professor Simpson made a threefold suggestion—an appeal to he conscience of outside architects, who subscribe neither time nor money towards the benefits procured or them by the Institute; reopening of the Licentiate division; and a more general agreement upon the essentials of architectural education. Of this tripod t is the third leg that is most in need of careful adjustment to bring the objective into effective focus. To evert for a moment to Professor Simpson's simile, it is obviously the heterogeneousness of the aggregate that auses all the difficulty. It has to be dug out, and then rouble arises about grading and proportioning. Whether the Institute is ultimately to consolidate on a "poor mix" or a "rich mix" may possibly depend ather less on the character of the aggregate than on he skill with which it is handled.

Is the Institute to be aristocratic and exclusive, or democratic and eclectic? Old class prejudices and distinctions seem to be melting away, or at least to be yielding place to a broader view of aristocracy. We are to have, it would seem, not an aristocracy of birth or of comparative wealth, but an aristocracy of talent; and the Institute, we take it, would be well advised to adjust itself betimes to the new movement. It can do this without the slightest lowering of tone. In fact, we should be disposed to contend that its tone will be raised by the cultivation of a more liberal spirit, a fuller recognition that character and ability are not confined within the artificial bounds of convention. Before the war there was under way a scheme for recruiting the profession from the great public schools. There was nothing to be said against it except that it seemed unduly to contract the field. By all means let architecture be a dignified profession for gentlemen, but let it be also a liberal profession, not only open to talent from all quarters, but encouraging and helping it wherever it can be found, sedulously seeking it out and dragging it from obscurity, educating and training it. Not that the Institute need convert itself into a philanthropic or charitable organisation (it is both already, one is thankful to admit); but that it shall make haste to take counsel with the Minister of Education as to the ways and means of smoothing the way to university degrees in architecture. At present the Institute, and the profession at large, are suffering acutely from this neglect of ways and means. Many an "outside" architect is an architect because of his natural bent and ability, and is "outside" because in his youth there was none to take him by the hand. Being poor, he was callously regarded as an "outsider," and left to fend for himself.

* * * *

Such cases could be counted by the thousand. There are more outsiders than insiders, and we suggest that the proportions might be radically changed, the unity of the profession vastly strengthened, and the general standard and status considerably raised, if a rational and liberal means could be devised of catching the outsider while he was very young. In this way the Institute could become democratic without degradation—would not be recklessly admitting Tom, Dick, and Harry (as the injurious old catch-phrase has it), but converting them (if that is thought necessary) to Thomas, Richard, and Henry, and giving them a remote chance of getting a handle to those names by and for the adornment of architecture. For, as someone has rather neatly put it, one's "station in life" is not the station of departure, but of ultimate arrival; and we should like to see the Institute more keen on helping the youngsters "to get there."

* * * *

By the death of Sir John Wolfe-Barry, which took place on Tuesday of last week, we lose one who was nearly our most industrious civil engineer. Although he had reached the age of eighty-two, he was still very active, and up to the day of the brief illness that caused his death had been constantly in attendance at Westminster Hospital, for which institution he was organising a special appeal for £20,000. Sir John was the fifth and youngest son of Sir Charles Barry, R.A., the architect of the Houses of Parliament. Born in London on December 7, 1836, he was educated at

Glenalmond and at King's College, London. After serving for awhile on the staff of Lucas Brothers, the railway contractors, he became a pupil of Hawkshaw, whom he assisted in the construction of Charing Cross railway bridge and station. After building the similar bridge at Cannon Street, Barry commenced practice on his own account. Between 1883 and 1887, he built the St. Paul's railway bridge and station, and in 1894 he completed the Tower Bridge, of which the most remarkable feature, the bascules, were suggested by Sir Horace Jones, the City of London Architect.

* * * *

Sir John Wolfe-Barry built many other bridges, and was the first to demonstrate, by a series of tests conducted in 1899, between the stations at Earl's Court and High Street, Kensington, the practicability of electric traction on the Underground Railway. He was the engineer for the extension of the Surrey Commercial and other London Docks, and he designed and executed the great docks or ports at Barry, Newport, Immingham, Grangemouth, and elsewhere. He served on many Government commissions and public or professional committees, and was from the outset the chairman of the Engineering Standards Committee, and had been president of the Institution of Civil Engineers and other bodies. That so intensely busy a man should have reached so great an age is one more proof that hard work seldom kills—or, rather, perhaps, that an uncommon endowment of vital energy tends both to activity and longevity. *De mortuis nil nisi bonum;* we therefore refrain from saying anything about the above-named London bridges beyond the irrepressible observation that the son of an architect might have been expected to show more respect for æsthetics.

* * * *

Mr. R. W. Collier, F.R.I.B.A., protests vigorously, but we fear vainly, against the intention to pull down St. Olave's, Tooley Street. It will be remembered that we referred to this threatened demolition some weeks ago, when, however, we felt that protest was futile. That Henry Flitcroft built it, and that it is one of the only two existing examples of his work, is no doubt a strong argument for its retention; but better buildings, by more famous men, have yielded to less powerful economic pressure. In every way, St. Olave's is "in the fell clutch of circumstance." Having lost its function it has, in the utilitarian view, forfeited its right to existence. It is a pity: for the church lends a grace to a particularly ugly and ultra-commercial environment; but all that can be hoped for is that the warehouse or provision store that will eventually supplant it may be given a face that will be at least inoffensive—a condition which those who are selling the church ought to make binding.

THE PLATES.

First Church of Christ, Scientist, Detroit.

CHRISTIAN Science being widely separated from orthodox theology, it is natural that the many churches of Christ, Scientist, should have a distinct architectural character of their own. Why they should invariably follow the Classic style is not immediately apparent, since the cult of psycho-therapeutics, essentially modern as it may be, implies an intensity of religious belief not altogether dissimilar from that which gave us the masterpieces of Gothic art. The peculiar ritual of Christian Science, however, is perhaps better served by the breadth and uniformity of the Classic style. The First Church of Christ, Scientist, at Detroit, U.S.A., is characteristic of the majority of Christian Science churches. Externally it presents a dignified main elevation, with a fine portico of Ionic columns
supporting a bold attic storey. The interior is b
and spacious, and is wholly without columns or c
supports to obstruct the view. Seating accomm
tion is planned on the principle adopted in the
modern theatres and concert halls. The floor slo
upwards towards the back of the church, anc
seats being arranged fan-wise, every member o
congregation has a clear and interrupted view o
platform. A level floor is always unsatisfac
from the point of view of an auditory, and
rather remarkable that church architects in partic
should not have abandoned it long ago. As i
the floors of most churches, if not perfectly flat
insufficiently sloped, with the result that seeing
hearing properly are out of the question. In the
of the Detroit Church of Christ, Scientist,
problem is faced squarely and courageously;
though its outward character may be more se
than religious, the building may at least be sa
be perfect in its practical arrangements.

House in Downing Street, Farnham.

Farnham contains many interesting houses da
from the eighteenth century, the one in Dow
Street, shown in this issue by Mr. Harold Falk
delightful pencil drawing, being a typical exa
The governing feature in all these houses is the
window. Windows in Farnham are generally
as high as they are wide, and are placed not less
three feet above floor level nor more than one
below the ceilings. Except in the case of
property, all the houses have a parapet above
cornice. In the earlier houses cornices and de
are bolder; in the later ones the refinements bro
to perfection by the Brothers Adam are appare

The Gare du Nord, Paris.

Prominent among the architects of the Cl
School in France at the close of the first quart
the nineteenth century was Jacques Ignace Hi
who, though born in Cologne on August 20, 17
rightly regarded as a French architect, having
naturalised as a Frenchman and having er
many important buildings in Paris. The Gar
Nord, his last work, and the finest architec
railway station in the world, is a fitting monu
to his memory. Donaldson, who knew him
mately, said: "The last great work of our fr
and one which is colossal in effect, is the termin
Paris of the Northern Railway of France.
propylon, as it were, of the Egyptian and
type, consists of three circular-headed archwa
the Ionic order and tetrastyle treatment,
crowned with a pediment and graduating in
and with intervening Doric colonnades, the
consisting of purely Greek detail and enriched
culture of the highest class. I must own
impressed as I was when I first saw it, I
staggered by the audacity with which all the
canons of art were disregarded in the general
position and yet producing on the mind a
imposing and, it may be said, solemn effect. I
stood at periods before it to study the elemen
the design, and how the like impression coul
produced by any more severe treatment, but in
and I could not but render homage to the geni
the architect who, by a most capricious maste
his subject, could successfully render himself
pendent of the ordinary conventionalities of hi
This is a most striking instance of the different
ment with which such stations are handled in F
and England: with them it is to be a monum
object, to impress the stranger with the im
greatness of the capital of France, and to deve
taste for all the resources of architecture an
sister arts; with us it too often results in a
magazine or shed, or an enormous refuge
colossal hotel to receive the weary traveller."

HERE AND THERE.

THERE is, I am informed, a peculiar malaise known to the faculty as "Museum headache." It was much affected, in the effete days of peace, by anguid ladies who crawled about Bloomsbury habited n sage-green; but the chief sufferers were the brisk itizens of the United States, who scheduled themelves to do the "hull show inside of fifty minutes," nd filled out "one crowded hour of glorious life" with "quick lunch." If the rush through thousands of ears of the world's history failed to produce the uthentic local headache, the quick lunch might be epended upon to develop the desired result, enabling ie patient to say truthfully in New York or Boston, Yes, and we sampled the famous British Museum eadache."

* * * *

I do not remember to have acquired a headache in ie British Museum; but I must confess to many a eart-ache. Is it not soul-sickening to listen to the lly jests of a holiday crowd in the mummy rooms? 'et I trust that this irreverence of the profane vulgar merely superficial—is perhaps an illustration of the iveterate habit that the English have of disguising ieir profoundest emotions with a light jest, as they o on the field of battle. "This way for the early oor!" is, it is said, a common cry among our brave ellows as they go "over the top" to face death. And ossibly many of the casual visitors to the Museum ardly realise that those mummies are really dead men, omen, children—human beings who, hundreds or iousands of years ago, lived and breathed, loved and ated, rejoiced and sorrowed; though, to be sure, I ice saw tears welling from the eyes of a poorly clad oman as she turned away from the mummy of a child. :er woman's heart had understood.

* * * *

It would perhaps be squeamish to protest that an xhibition of embalmed dead persons is revolting. luch turns on the motive and on the effect, and it is ot impossible for these to be entirely honourable. ll may be done in reverent awe; and the emotion of iat poor woman may either vindicate or condemn the ractice, according to one's mood or attitude. mbalming is surely one of the strangest things in iman history. It represents, if I understand the atter as the pundits expound it, the Egyptian belief a sort of conditional immortality. "The doctrine of siris," we are told, "taught that the human body was precious thing, and men took care to embalm it and vathe it in linen, so that it might be ready for the turn of the soul to it, when it would begin a new life the kingdom of Osiris." Painting the portraits of e dead on the linen swathings over their faces was a ther late practice—of the Græco-Roman period (the st century A.D.)—and it has preserved for us most luable evidence that some of the portrait painters of at period, whatever may have been their nationality, id attained to a high degree of skill, and were in ossession of pigments that were brilliant and during.

* * * *

It is an odd word, "mummy," and is said to be erived from the Arabic *mumia*, which means itumen," that being the substance which was chiefly nployed in a later and more refined process of ibalming. But have mummies anything to do with ilding, which is the subject to which these *causeries* e supposed to be more or less closely related? It is rdly necessary to say that the answer is in the firmative; for the same solicitude for the preservaon of the body that developed the curious art of embalming led also to the construction of those age-defying tombs that are almost our sole surviving examples of the earliest scientific building. Scientific it was beyond question, with an accuracy of calculation and a nicety of adjustment that would take the conceit out of the modern engineer, if that consummation were by any means possible.

* * * *

Some thousands of years before the Christian era the Egyptian workman carried in his rush bag a very complete kit of tools; and that he knew how to use them is evident from the true squaring of his blocks of stone and the exquisite fineness of his jointing. You could not, someone has said, insert the edge of a visiting card in the joints. Among the many inventions of the early Egyptian builders we may reckon, I suppose, the brick, mortar, the beam, the arch, the labour strike. A vague rumour has reached me that fourteen hundred years (was it?) B.C. the builders of one of the pyramids downed tools for better terms.

* * * *

That the ancient Egyptians were good carpenters is naturally a matter of inference, their work having disappeared. If it was half as good as the stonework in which the forms are presumably copied or inherited from earlier woodwork, it must have been excellent. Yet, while the first columns or stanchions were tree-trunks, it would seem that ages elapsed before the Egyptians rounded their stone columns, which were first rectangular on plan. Then probably some Pharaoh stubbed his royal toes against the sharp arris, and at once gave simultaneous commands that the builder should cut off the corners, and that somebody should immediately thereafter cut off the builder's head; unless the builder happened to be the husband of the Pharaoh's daughter—which, I am told, was quite a common arrangement—when, unless the wife had grown tired of her husband, somebody else's head would do just as well. Some sacrifice to outraged honour and dignity had to be made, and its incidence was of no particular importance. Some grandees died many deaths—by simple substitution; just as, in more modern civilisation, in the West, naughty young royal princes were frequently whipped right lustily: the carcase receiving the strokes being, however, that of some common person, who was supposed to be greatly honoured in the castigation.

* * * *

Why some of those great potentates of early Egypt made themselves two or more tombs is to me an Egyptian mystery. They could afford this extravagance, labour and materials being abundant; and their case is, after all, not so very different from that of the modern English Duke, who may have several tremendous "seats" or palaces in which to bury themselves alive. Some little while back, "The Londoner" of the "Evening News," commenting on the epidemic of giving palaces to the nation, said that if he had a palace he would be glad to give it away in exchange for a small house in which it would be possible to make a home. Now, I rather suspect that these vast "seats of the nobility" are the lineal descendants of the Egyptian tombs. Otherwise it would be difficult to account for the gloom and the labyrinthine planning of some of our ancestral halls, or for the indifferent sanitation. In this last respect they are rather worse than the old Egyptian Hall in Piccadilly, of which Artemus Ward complained so pathetically, when he was lecturing there, "I wish that the Egyptians, when they built this hall, had paid a little more attention to the ventilation."

DIOGENES.

PREPARING FOR PEACE. II.—INCREASE OF PRODUCTION AND ITS EFFECT ON THE BUILDING TRADE.

BY C. H. B. QUENNELL, F.R.I.B.A.

IN the article published on January 16, an attempt was made to examine the proposals of Mr. Fisher's Education Bill and its possible effect on the building trade. It was held to be of good omen that this first measure of the Government, not of immediate war concern, but designed for the benefit of the community and the reconstruction of its life, should be one of education, and that it was backed and desired by Labour. A sign of hope, if it is admitted that it is not only the child at the elementary school who needs a broader basis of training, but as well that the rest of us stand in need of humanising.

This week it is proposed to examine the very pressing problem of increasing our production. The phrase turns up in every daily paper and most of the politicians' speeches; the necessity is admitted, but the solution is in the hands of Labour. Are they prepared to work all out, instead of half so, as before the war, under the mistaken notion that the less work done the more there would be to go round, and the less chance of unemployment; are the other classes of the community, the landowners, and those in the possession of the sources of wealth, going to allow the others access so that it can be created? A hopeful assurance was given in a speech by Mr. Balfour the other day, in which he stated that Labour was entitled to and must in the future have a larger share of the rewards of its industry, and by Labour is meant not only the labouring man, but any individual benefiting the community. England is to be turned into a company, and we shall all be shareholders.

Returning, then, to the necessity of increasing our production, the best indication of the need of so doing is to be found in the present adverse rate of exchange. The British pound at the moment is rather like a golden calf set up in a rationed wilderness, and we its worshippers can't help noticing that its girth is diminishing. We want to fatten up the poor beast again. What it all amounts to is this: the Argentine, or any other country trading with us, says, in effect, If we supply you with food or raw materials, we want in exchange manufactured goods which we cannot make ourselves, and if you offer us gold in exchange, we will only take it if we can obtain with it elsewhere the commodities we want, and as it becomes more difficult to obtain these we will give you less for your pound. In fact, they say, "Take the nasty pound away; we don't want any pound to-day," and we worshippers of the golden calf—dealers, most of us—commission men —becoming Semitic in our marrow, have been deeply shocked that our pound does not seem to be of much more value than the cowrie shell; and in reality it is not, both being indigestible.

So the balance of trade comes in, and we, and the whole world, will have to make up leeway and start making the things which are required, and for which people will give us the things we want. This means planning ahead for the building trade; and very urgent consideration as to methods, so that the work may be well done and mistakes avoided. It means the provision of factories sensibly planned and with some regard for the amenities, in which the workers may be content to labour, and able to do so cheerfully. Whether we shall go to the American length of providing bands to play during working hours remains to be seen, but there is opportunity in the direction of planning, adapted first to the purpose of the manufacture carried on, and then having a added quality of being more presentable than th collection of tin-covered sheds surrounded by slun property which is the general thing nowadays.

A manufacturer, speaking to the writer some whil ago, said, naming a large town in the West Countr "There are several architects in ——, but not one o them is interested in factory building, or knows any thing about it, but if I walked into one of thei offices and said I wanted to build a house I should b received with open arms." But this will have bee remedied by now, and our friend is sure of welcome if he comes along with any building pro position; and the hope is that there will be collaboration between manufacturer and architect and preparation made to meet the demand.

There will as well be the question of the adaptation to useful work of plant laid down for wa purposes, and here again, if we can obtain recogn tion of the fact that even the most artistic archite spends perhaps only 25 per cent. of his time i designing, and the remaining 75 per cent. in carrying out the work, we may be able to persuade peopl that we possess administrative qualities useful t the community at the moment. Certainly it will b in this direction that we shall find the most usef outlet for our energies, and most of us must b content to leave ornamental building to the ne generation. We shall have to be prepared to do an work which calls for orderly arrangement an planning.

Another factor to be considered is that after t war the Central Empires will be in the markets of t world, clamorous for the food they need and t raw materials they lack; and though there is a goo deal of loose talk about economic warfare an cutting off their supplies, it is to be hoped that whe peace does come it will do so without open sores this kind to breed trouble ahead. But our immedia concern is that from the economic point of view shall want to import raw materials and pay for the in exports, and anything that we can produce ou selves in the way of building materials, timbe stone, marble, and so on, will put us in a strong position to carry out our own work without loss to t community. There must be enormous dislocati when peace comes, and greater demands than ev on shipping; it is conceivable that many industri may be held up for this reason that they will not able to obtain supplies. Fortunately, we shall be a better position, and our main difficulty will internal transport, cost of railway transit, and t fact that we have so long neglected our own ra materials. There were pre-war instances of goods i ported from the Continent which by some series inexplicable conditions could be transported by s and land and sold cheaper and more readily th local material of the same type. Railway rates we so arranged that it seemed to be easier to se goods to New York than on the direct rail to Lond Railway companies bought up key canals to crip the whole system, and out of all this awful welt of industrialism gone mad the war came. Our job to try and improve things a little.

From the point of view of putting the buildi trade in a strong position for service after the wa what is needed now is an inventory of all possib sorts of building materials which we possess and c produce in the country. Because these represent weal and the opportunity to get to work speedily. Home timber has been largely used, and if planting is done, not talked about, may be of use in the future. Attention might be given to our own hardwoods. English oak is a better material and far more decorative than that of Austria, but it is difficult to obtain, because it is seldom properly cut or seasoned. Sweet chestnut used to be largely used, and English walnut is one of the most delightful woods for furniture. We have a large range of quite beautiful English marbles which might be more considered. A foreigner coming to England for the first time might think that we possessed only one slate, that of Bangor, and yet all over the country are many varieties which seem to have gone out of use for no very good reason, and the same applies to stone. In the old days the local men opened the hillside and got what they wanted, or they had brick earths, and made bricks and tiles; we appear to prefer to import them from the other end of the country, and out of sheer cussedness we use slates in a good tile country and vice-versa.

Leaving the artistic side of the question alone, and the great advantages of using materials which tune in with the countryside, this method of importing building materials from one part of the country into another is a most uneconomical one.

The Minister of Reconstruction has recently appointed a Committee to go into the question of this supply of building materials after the war, and it is to be hoped that they will examine, not only what might be called the regular sources of supply, but the possibilities of these neglected sources. Local authorities might be asked to give information on all the old disused quarries, brick yards, water power for working the same, and so on, which have often gone out of commission, not so much because the material was exhausted as by reason of cost of carriage and other difficulties.

There must be a great demand for materials and manufactured goods used in building after the war, not only at home, but in the areas devastated by the war, and we may be called upon to export the same.

The necessity for raising more and more food as time goes on, to combat the coming world shortage, will again mean more men on the land, and, to get them there, more attractive conditions. Co-operative and group-farming would seem to be one of the solutions, and this will call for new types of buildings. Yet at the moment the Local Government Board is conducting a competition, through the medium of the R.I.B.A., for four types of cottage designs to be suitable for erection in urban and rural areas; one design, for instance, is to do duty in town and country, from Norfolk down to Sussex, and Oxfordshire across to Essex. How any one design is to make an economical use of local materials and suit all the varying requirements of local conditions, or respond to all the possibilities for development which are ahead of the countryside at the moment, is not explained. Some little while ago the L.G.B. addressed inquiries to all local authorities as to the needs for cottage building in their districts; are these same designs, thus provided by the R.I.B.A., to be distributed free of charge, or shall we find them used as wrappers to our Government cheese? But it is a fatuous proceeding, opposed to the interests of the profession, and, more important still, against the general public interest.

It is conceivable that when the soldiers come back from the war they may say, "Away with you and your two bedroomed cottage Class C. We have seen the French peasant at work, and we want different conditions of life, and are going to have a bit of Blighty of our own." They will be entitled to it.

It would have been far safer to trust the local authorities to work out their own salvation.

CORRESPONDENCE.

Competition versus Co-operation.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Surely there is much to be said for Mr. Morris's thoughts as inadequately expressed in his letter to you.

To my thinking he does not go far enough. Are we, as you seem to imply, to go on in the same happy-go-lucky and yet deadly competition, one against another, as in pre-war times?

The R.I.B.A. and several of the Universities, by their severe and critical examinations, grant diplomas and degrees definitely showing that the students they pass are qualified to practise architecture and to safeguard clients' interests; yet under the present régime these highly skilled men have to compete one against another. It has been known that more money has been spent by the combined competitors than it cost to erect the design, and very often the competitors who have made it their business to study the requirements know more about the general design required than the assessor, the natural result being that a building is erected most pleasing to the assessor, and probably not the most suitable. Individual competition is our most deadly enemy. As small children we are taught to win the prize by defeating our best friends and schoolmates, instead of pulling together as in our sports.

It came under my own personal observation in Constantinople that the British method of individual competition brought the downfall of our prestige, influence, and trade in Turkey. If the Turks wished a quotation and delivery of material, the British commercial colony would get quotations from home and undercut each other to the last piastre. The Teutons would observe from their club "Teutonia," and when they had learnt all would come in at the fag-end and win with a lower figure. The "Teutonia" pulled together, and Germany could afford to charge a higher price at home for an article which she could sell cheaply abroad. Naturally, by this means Germany could undercut the lowest British prices. I should like to see our students working together, as they now help each other even on the same prize competitive designs (for in these complicated days it is quite impossible for one man to design and carry out any large design), and it would be far better to co-operate workers rather than to pay for professional advice.

Look what excellent results have been achieved on the character of boys by sports and clubs and on elders by societies, institutes, and unions. The R.I.B.A. is the senior society of architects, and it is often approached, and recommends assessorships and arbitrators. Is it not time for the Institute to extend its activities by obtaining building clients and distributing work?

It would be known soon that the Institute appointed or recommended good men to do good, suitable work, and much work would flow to members. It could be arranged, if thought advisable, that a senior member, instead of acting as assessor, would act as consulting architect to maybe several architects employed on the one design. We should get specialists in planning, in engineering, in elevations, in decorations, etc., all working in harmony and co-ordinated by an experienced mind. The complete work being approved by the corporate society.

In this way a great school of British architecture would arise, we should save an endless amount of futile thought and money, and would indeed stand first in architecture among the nations.

ARTHUR E. HENDERSON, F.S.A., R.B.A.,
Licentiate R.I.B.A.

COTTAGE ACCOMMODATION, EQUIPMENT, AND PLANNING.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

(Concluded from page 38, *No.* 1203.*)*

Some Disorders of the Bath.

SO far, I have said nothing about the bath. Every cottage should have its bath; about that there is no question. It may be a fact that in certain cases the bath is used for the reception of coals, potatoes, or underlinen, but such cases are rare exceptions to the rule.

But besides the bath, which must needs be on the ground floor, and is usually placed in the scullery, we have also the boiler to provide space for, and if there are to be no back additions, also a w.c., coals, and larder, all under the first floor.

Back Additions Sometimes Unavoidable.

With the three-bedroom cottage without parlour, it is usually found possible to provide space for all these offices and features without having to resort to back additions; a greater difficulty arises when it comes to be a question of sharing between them door and window space on an outside wall. Indeed, with certain types of plan, such as the type where the living-room is behind the parlour and the scullery below the staircase, and when there is no outside side wall, as there would be were the cottage semi-detached, to get all this accommodation within the main block is impossible, if only for the lack of space along the back outside wall. It is also a great help if the larder can be planned off the front entrance with a tiny window in the front wall; though from the point of view of greatest convenience it is perhaps better off the scullery. A separate bathroom with w.c. combined can sometimes be planned off a lobby by the back door. Where this can be done it is a good arrangement, but usually the bath is planned directly in the scullery against the boiler and away from the sink. Where the bath is in the scullery an attempt should at least be made to fix it in a corner or along one end, so that a curtain can be drawn across and the bath space completely cut off whilst it is in use.

Service Spaces.

Without going further into the planning of the service spaces of a cottage upon which all the ingenuity required to plan a cottage has to be concentrated, it may be mentioned that on the planning of the smallest of these spaces often hangs the whole of the cottage plan.

We have still the staircase to consider, and the question of where it should start off the ground floor. The best place is from the entrance lobby, because when entered from the living-room or scullery there is a tendency for the upstairs part of the cottage to become contaminated with the ground floor bad air, and I think, on the whole, it is better to enter the cottage through a staircase lobby rather than have the front door leading direct into the living-room.

This is perhaps the healthiest and most acceptable arrangement, especially when the cottage is in an urban or semi-urban area, but for my own part I think there is much to be said for a cottage living-room that can have a direct connection with the garden by an open door. It is the old-world arrangement, and an arrangement that appeals to poet and artist, who always depict the cottage with the sun streaming in through the open door.

But to return to the services, washing and clothes drying and the provision of hot water. The same old
cottage always depended for its hot water supply up
the oldest of human utensils—the kettle, which, wh
not standing on the hob, was hissing on the kitch
fire.

To-day, when ceremony is cut to the finest point,
have the side boiler, with its tap below, but an arrang
ment which is quite inexpensive, and which is comi
to be considered essential, is to provide hot water
the scullery sink and the bath.

This can be done economically in one of two wa
either by building in the scullery boiler behind t
kitchen range, a combined boiler and range, and th
having a constant supply of hot water in the boil
which can be led off to the sink or bath; or by fixi
a specially made high boiler behind the kitchen f
supplied by a pipe from a ball-controlled automatical
working water-waste preventer at the side of t
kitchen fire, and from the boiler leading pipes to t
sink or bath, or both, in the scullery; the whole syste
being a low-pressure system, and depending for
flow only upon the head of water in the water-wa
preventer by the kitchen fire.

Larder or Food Store.

The question of the size of the larder, or food sto
is a matter of some considerable controversy amon
the experts. We know that in the old cottage t
buttery, or store, was often as large as the living-roo
but, then, food was stored there in quantities th
would last for a year. This large-sized larder is tra
tional, and the change to a small ventilated food cu
board sufficiently capacious to hold one week's supp
or very little more, can only be brought about
stages. Moreover, it is a question to-day as
whether in semi-urban districts the larder should
curtailed, especially in view of the need for stori
vegetables, which may be brought in from an all
ment some distance away.

However, it is often very difficult to provide sp
for a large larder under the main roof, and it is
view that in most cases this apartment can be reduc
in area and be designed as a ventilated food cupbo
and nothing more.

There are, quite apart from cost of construction a
cubical capacity absorbed, strong objections to a la
larder of another order. The larder of all pla
should easily be kept sweet and clean, and if too la
and filled with rows of high shelves there is a dan
of its being converted into a lumber-room; indeed
have heard of a case where the slop-paid was put th
out of the way, because it was objectionable in
scullery, and it was too wet to empty it out of doors

Coal-house.

The size and position of the coal-house, althou
influenced by tradition, should really depend upon
local custom of delivery, whether it be by the ton
half-ton delivered in a cart, or whether it be by
hundred-weight and delivered in a sack.

When it is customary only to take in a few hundr
weight at a time, quite a small coal store, say a pl
three feet by six, is all that is necessary, and where
coal is delivered in a sack the coal place can be in a
odd corner of the scullery, and perhaps if deliveries
frequent, as they were before the war in London
coal-box placed in some out-of-the-way corner of
scullery, or in an adjoining lobby, will suffice.
taking one district with another, it will be found t
in most places it is not customary to deliver by sack
which case (except where it is customary to deli

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* Concluding part of the fifth of a series of six lectures delivered at University College, London.

coal in large quantities, when a commodious outside coal-house is necessary), the best arrangement is to provide a small coal place next the outside wall and adjoining the scullery, so that the coal can be thrown in through a two-foot square opening from the outside and taken out by a door opening direct into the scullery, with an arrangement of removable boards, or otherwise, for holding it up to a height, say, of four feet against the scullery door.

Refuse Disposal and Drainage.

The whole question of refuse disposal, back additions, back yard, and back passage are intimately tied up together.

In olden times the waste water was usually thrown into a roughly-paved channel, which carried the slop water into a brook at the end of the garden, or to any out-of-the-way corner, and the solid refuse was thrown anywhere. But these primitive arrangements won't do to-day. Unless in some out-of-the-way place in the country, the waste water from the sink and bath is taken to the sewer and the refuse is removed periodically from the sanitary dust-bin, which stands somewhere outside the back door.

No questions in regard to the service arrangements of a cottage have been the subject of so much debate as have those which are concerned with the removal of this sanitary bin and the delivery of the coal. On the method of conducting these services hangs the whole question of the back passage. Where the coal is delivered unsacked and in bulk, and where the cottages are built in terraces, the back passage is absolutely essential, but where it is delivered in sacks it is merely a question of the propriety of carrying coal sacks, say, once a fortnight, and the sanitary dustbin, say, twice a week through the living-room and the front door. This is the custom in London and in the London area, and it is a custom that has been adopted in the Well Hall Estate, at Woolwich.

But when this arrangement is not considered feasible, and when the expense of constructing a good back passage is prohibitive, a compromise is sometimes made by putting an archway between every two houses, so as in effect to make a group of four, six, or eight cottages have the same accessibility from front to back as if they were semi-detached; or middle cottages in a group are reached from passages at either end of the group by narrow back passages between the houses and back gardens, thus really separating house and back garden by a public way. Personally, except that it is costly, I am not so averse to the back passage as some may be. Its objectionable nature need not be that which we associate with the ten-foot bye-law back passage, of which we have seen so much in the bye-law-built town. The back passage in the suburbs should have the appearance of a narrow lane. In it the children can play, and there is no reason why it should not be banked up at either side with hedges, lined with trees, and be in every sense not a brick culvert, but a shady lane. But its provision is really dependent upon cost and the local custom of delivering coal. To provide it in order to prevent the sanitary bin from having to be carried through the living-room is a ridiculous concession to a sanitary whim.

The Back Passage Condemned.

On the whole, I think we ought to endeavour to get rid of the back passage, and this principally on account of its cost. I am not quite sure if we have yet seen the last of the coal-cellar under the front stair. A coal-cellar under the front stair with a coal shoot at the front door and a stair down out of the scullery would be infinitely cheaper than the back passage and coal-house, and with such a provision the back passage, except as an approach to intervening space between the cottage, as allotments or public spaces, would not be required.

Back Yard and Back Additions.

Then as to the back yard and back additions. Groups of cottages serrated with back additions are a curse in the existence of those that have to live in them. Not only do they block out of the back room both sun and air, not only is their meaning and appearance depraving, but also when viewed from the garden their appearance is complicating and irritating.

It may be necessary to provide 150 ft. of paved space outside the back door, and it may be necessary to screen off a coal-shed or a w.c. door with a bit of trellis overgrown with a climbing plant, but the back addition, which we have seen so much of, and which results from attempting to plan a cottage on too little frontage, is utterly unnecessary.

With regard to the newer materials and methods of construction, these cannot be fully considered now. They are the subject of a course of six lectures in themselves, but a few general observations may be of interest.

Concrete Construction for Cottages.

Concrete construction, reinforced or otherwise, may have a much more important bearing on cottage building in the future than it has had in the past, but I am convinced that its universal use will depend not on any patent method of application yet to be discovered, but on the organised methods of the State, or of one or more big firms, who, adopting a system of rapidly constructing walls and floors, which, as regards the former, will resist damp and condensation, and, as regards the latter, be easily handled, and not need shoring, and who, having the necessary capital, are prepared to manufacture blocks or slabs, reinforced or otherwise, by the million, and who are prepared to set up such factories all over the country where suitable aggregate is to be found.

Only in such a way will concrete construction be found to be more economical than brick or stone. As regards the appearance of the concrete cottage, I shall have more to say about this in my next lecture.

Then as regards sills, steps, and thresholds, these are probably cheaper and better when constructed of patent stone.

Floors and Roofs.

A whole lecture might be devoted to the surface of the living-room floor. Personally I think there is nothing better than red tiles, on which the inmate can place a square of carpet or a rug, but the working man in some districts is not so hardy as in others, and a wood floor laid on concrete, or linoleum fixed down solid, is very good, and perhaps warmer than tiles. So far nothing has been produced that is better than a wood window or door, and nothing more economical or better has been forthcoming than a carpenter's roof. For a roof covering slates or tiles still hold their own, though in a few cases asbestos sheeting may have a vogue.

In American towns all the roofs are flat and are covered with some sort of asphalte sheeting. A flat roof in towns, with a covering of permanite, or layers of tarred felting, has many advantages, not the least of which is that it enables all the rainwater to be carried down rainwater pipes into the gulley at the back, and so does away with the necessity of providing down pipes and perhaps drains in the front, down the garden and across the public way.

Opportunities for New Materials.

But whilst there is reason to anticipate that when the 500,000 cottages that are required come to be built the possibility of economically using new materials and of adopting new methods will be greater than ever before. We must beware, at the same time, of getting into the hands of constructional cranks and faddists who, presuming to carry the torch of science, may in the end do no more than create confusion, and upset tried traditions that ought to stay.

R.I.B.A.

The R.I.B.A. Record of Honour: Fifty-first List.

Killed in Action.

Davison, W. Rupert, Middlesex Regiment. Killed in action on November 20, 1917.

Rupert Davison, born in 1881, son of Mr. T. Raffles Davison (Hon. A.) received his architectural training in the office of Mr. W. Baldwin, of Lincoln's Inn Fields. Specialising in housing and cottage design, in which he did much sound work, he was awarded by Sir Edwin Lutyens third premium in the "Daily Mail" Cottage Competition, and designed a cottage which was the central feature in the Ideal Homes Exhibition at Olympia. In conjunction with Messrs. Alfred Cox and Trimnell he designed and carried out the Wakefield Public Library, won in competition. He was a regular exhibitor at the Royal Academy, and his work was frequently illustrated. In the war he had done valuable work in railway engineering, and had been formally transferred to the R.E., when he was suddenly recalled to his old regiment at the Front, where he met his death.

Military Awards.

Maule, Captain Henry P. G., Hon. Artillery Company, M.C. (F.), who was specially mentioned in Sir D. Haig's dispatch of November 7 for distinguished and gallant services and devotion to duty, has been awarded the D.S.O.

Wicks, Captain Herbert Graham, R.F.A. (Student). Awarded the Military Cross. Captain Wicks, on his own initiative, went to an exploding ammunition dump, brought in three wounded men and directed others to safety. During the whole two hours in which he was thus engaged the dump was under heavy fire and shells were exploding in all directions.

McDermott, Lieut. (Acting Captain) Walter Kingsley, 6th Buffs (late of E. Kent Regiment). Mentioned in dispatches ("Times," December 19).

Promotions and Appointments.

Lieut. R. V. T. Sewell, R.E. (Licentiate), promoted Captain and Adjutant to C.R.E., 3rd Army Troops.

2nd Lieut. R. Norman MacKellar (A.), promoted Lieut., R.G.A.

2nd Lieut. H. W. Lockton (Licentiate), Royal Engineers, promoted Lieut.

Lce.-Cpl. B. R. Gribbon (A.), Highland Light Infantry, gazetted 2nd Lieut. Northumberland Fusiliers.

Mr. Robert W. Carden (A.), granted a commission as Lieut., R.E.

Mr. Arthur F. Wickenden (A.), promoted Lieut., R.N.V.R.

The Rebuilding of London After the Great Fire.

Arrangements have been made for the reading of a paper on the "Rebuilding of London After the Great Fire," by Mr. Walter G. Bell, at the general meeting of the Institute on March 4. Mr. Bell, who is a brother of Mr. R. Anning Bell, has been working for some years on a detailed history of the Fire of 1666, which will possibly be published before the end of the present year. It will be recalled that there is no proper history of the Great Fire. Mr. Bell's material on the rebuilding is entirely new, having been collected by himself with great labour from the Minutes of the City Corporation and Craft Guilds, Privy Council, surveyors' returns, building accounts (Wren's and others), memoirs and letters, substantially all of which are still in manuscript. The conclusions based upon them are that the struggle to restore the city was much more severe and the time taken in rebuilding much longer than the inscriptions on the Monument and popular belief would lead one to suppose. Mr. Bell's paper will be illustrated by slides showing a survey of the ruins, model plans for the new city, types of houses raised under the Rebuilding Act, etc. The meeting commences at 4 p.m., and members are requested to invite to the meeting any of their friends interested in the subject.

Elmes Testimonial Scholarship.

Mr. Hastwell Grayson (F.), one of the trustees of the Elmes Testimonial Fund, writes: When Harvey Lonsdale Elmes died a fund was raised, the income to go to the widow and son and the capital to found a scholarship in architecture and the fine arts. The son survived until last year. The trustees have now drawn up rules in accordance with the trust deed. The scholarship will be of the annual value of £30, and is limited to candidates under twenty-three years of age, who have attended various specified schools for boys and girls in Liverpool. The entrance examination will be held by the Professor of Architecture at Liverpool University, the first examination in next July. The successful candidate will be required either to enter the University of Liverpool and to follow the course of study qualifying for the degree of Bachelor of Architecture or to follow an approved course of study in some other institution of higher education.

At a general meeting (business) of the Session 1917-18, held Monday, January 7, 1918, at 3.30 p.m.—Present: Mr. Henry T. Hare, President, in the chair; twenty-seven Fellows (including eight members of the Council), seven Associates (including one member of the Council), and one Licentiate—the minutes of the meeting held November 5 having been taken as read were signed as correct.

The President announced that news had been received that the following Members and Students had fallen in the war: Lance-Corporal Beaumont E. Atkinson, Middlesex Regiment, Licentiate; Lieutenant Arthur Haines Tucker, Royal Sussex Regiment, Licentiate; Lieutenant (Acting Captain) Henry Carleton Brundle, Lancashire Fusiliers, Probationer; Sergeant Allen Lionel Freaker, Artists' Rifles, Student; Captain George Luard Alexander, Post Office Rifles (attached Staff), Associate; Captain Charles Gascoyne, Sherwood Foresters, Owen Jones Student 1906; Captain John Beedel Matthews, M.C., North Staffordshire Regiment, Student; Reginald Fowler, Associate.

Upon the motion of the President, it was resolved that the deepest regrets of the Institute for the loss of these members be entered on the minutes, and that a vote of sympathy and condolence be passed to their near relatives.

It was also resolved that a message of the Institute's sincerest sympathy be conveyed to Mr. Arthur Wells (F.), of Hastings, who had lost two sons in the war—namely, 2nd Lieut. Ewart Linley Wells, Wellington, N.Z. Infantry; and Lieut. Ronald Graham Wells, Royal Sussex Regiment; and to Mr. T. Raffles Davison (Hon. A.), whose son, Mr W. Rupert Davison, of the Middlesex Regiment, w recently killed in action.

The decease was also announced Charles Herbert Shoppee, elected As ciate 1874, Fellow 1889; Walter Sco elected Associate 1883; and Frederi Montagu Gratton, elected Associate 18 Fellow 1893, placed on Retired Fello List 1912.

Mr. Charles Tamlin Ruthen, attendi for the first time since his election Licentiate, was formally admitted by t President.

The following were elected by show hands under Bye-law 10:

As Fellows (10).

Cranfield, Sydney White (Associate, 189
*Harvey, William Alexander (Licentiat Birmingham.
*Jones, Francis (Licentiate), Mancheste
*Morrish, William James Marmadu (Licentiate), Dorset.
Nicol, George Salway (Associate, 190 Birmingham.
Nicol, John Coulson (Associate, 188 Birmingham.
*Powell, Robert Sidney (Licentiate).
*Ruthen, Charles Tamlin (Licentiat Swansea.
Smallman, Henry Richard George Stro (Associate, 1905).
Tickle, Arthur George Warnham (As ciate, 1911), Hong Kong.

As Associates (5).

Beeston, Humphrey Albert (Stude 1904), Egypt.
Coates, Harold Fenwick (Special Exa nation), Melbourne.
Henriques, Elias Cosmas (Special Exa nation), Bombay.
Hope, Archibald Campbell (Spe Examination), Ontario.
Rayson, Thomas (Special Examinatio

It was announced that as a result of Statutory Examination held by the In tute in October, the Council had gran a Certificate of Competency to act a district surveyor in London to Mr. He Colbeck, of 26, Bromley Road, Eali W.

Upon the motion of the Preside seconded by Mr. George Hubbard, F.S (F.), it was resolved: "That the hearti congratulations of the Institute be offe to Sir Edwin Lutyens, A.R.A. (F.), u the knighthood which had been rece conferred upon him."

A motion by Mr. Herbert W. Wills then proposed and discussed, as repor in our issue of January 16. It should h be added that the President, having m tioned that a conference of archite surveyors, and builders appointed to present the various interests involved, now sitting at the Institute, and that of the matters under consideration was question of the control of materials, as if it would meet the views of the meet if the resolution, having been first ported to the Council, were remitted the conference referred to in order t joint action might be taken. The se of the meeting was understood to be t the Council itself should take action accordance with the views of the meet as expressed in the resolution.

Forthcoming Meeting.

A general meeting of the R.I.B.A. be held on Monday, February 4, at 4 p. for the nomination of candidates for el tion and the announcement of the Co cil's nominee for the Royal Gold Medal the current year.

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* These candidates have passed the Examinat qualifying for candidature as Fellows.

WAR·BVILDINGS·SECTION

CONCRETE SHIPBUILDING IN NORWAY.

EINFORCED-CONCRETE barges
and ships up to sixteen hundred
ns capacity have been built in the past
ar by the Fougner Steel-Concrete Ship-
ilding Company in its yards at Moss,
ar Christiania, Norway. This com-
ny, which was formed in May, 1916,
gan with building small concrete
hters or barges, but by gradual develop-
ent worked into the design and construc-
n of larger towboats and finally of self-
iven vessels of small tonnage. It now
s on the ways power-driven ships of
teen hundred tons capacity and, under
ntract, awaiting the approval of the
arine registry of the Norwegian Govern-
ent, a four-thousand-ton freighter. All
ese vesels, as well as a floating dry dock,
ve been built under contract for com-
ercial or Governmental use.

The company was founded by Nic. F.
ugner, a Norwegian engineer, who has
d extensive experience in reinforced-
ncrete construction in the United States
d the Far East. Mr. Fougner, in 1914,
ilt in Manila a fifty-ton concrete lighter,
ich was put into immediate service and
s been in successful use ever since. He
turned in 1916 to Norway and built the
ant at Moss, from which have been
rned out about twenty reinforced-
ncrete vessels and which is now about
be enlarged in order to cope with the
creased demand for boats of this type.

The first vessels turned out in the yard
re lighters of about one hundred tons
pacity. The structure comprised a re-
forced-concrete keelson, reinforced ribs
d a thin shell of concrete plastered on
panded metal or poured around rods.
his variation of plastered and poured
ncrete continues through the Fougner
actice to-day, as will be explained later.

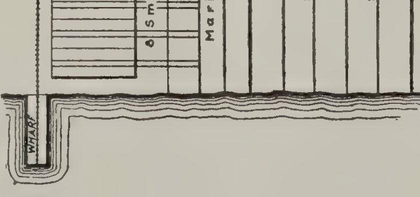
From the lighters progress was made to
rmed scows, or towboats, up to two
ndred tons capacity. These boats have
e more developed shape of a ship, but
herwise resemble the earlier scow. A
mber are in use for coasting tows up and down the Norwegian coast, and one or two have been bought by the Norwegian Navy.

Late in the past summer, the yard built and launched its first seagoing boat, the Namsenfjord, which also is the first concrete seagoing boat. It has received the Class A1 rating from Lloyd's, and is now in service for Norwegian coastal traffic. Some drawings of the Namsenfjord are given on the following page. Although very much smaller than the concrete boats now under construction in the Moss plant, its construction is typical of the Fougner design, and will therefore be described.

The Namsenfjord is 84 ft. long, 20 ft. wide, and $11\frac{1}{2}$ft. deep from deck to keel, having a draught of $9\frac{1}{2}$ ft. It is two hundred tons dead weight, or three hundred and fifty tons capacity, and is driven by a Bolinder crude oil engine of 80 b.h.p., permitting a speed of about seven and a half miles per hour. The cross-sections give an idea of the construction. Briefly, there is a reinforced-concrete keelson with cross-frames of reinforced concrete every 4 ft. These frames are continuous along the sides and bottom of the boat, and are tied into the keel by rod reinforcing. Particular attention is paid to the continuity of this rod reinforcing in the transverse frames, so that the bottom, side and deck frames, though cast separately, will form a rigid member. This is ensured by continuous rods and by additional knee-brace rods at the corners of the hull. The skin, 3 in. thick, is of concrete reinforced with wire mesh or expanded metal. It is tied into the frames and specially reinforced with a longitudinal beam at the outer corners of the hull. There are centre-posts at intervals of light wrought-iron pipe filled with concrete, supporting deck-beams which frame at the side into main frames. Two hatchways are provided of a construction shown in one of the sections illustrated. The hatch coamings are longitudinal beams, framing at their ends into main deck beams and carrying the deck alongside the hatchway on beams which are partly cantilevered from the side frames and partly flexural beams across to the hatchway coaming. A double bottom is provided by precast concrete plates spanning the tops of the keel frames and tightly jointed over these frames. On top of this interior plating 2 × 4-in. timbers are laid above each frame, and on them are spiked the $2\frac{1}{2}$-in. floor timbers for the hull.

The hull is divided into water-tight compartments by continuous transverse bulkheads, located as shown on the elevation of the sixteen-hundred-ton ship. These are walls of concrete, reinforced with metal lath.

A special reinforcing of longitudinal and cross beams is provided for the engine bed, as shown in one of the small cross-sections. The engine exhaust is through the rear mast, which is hollow. The cabin



LAY-OUT OF THE FOUGNER STEEL-CONCRETE SHIPBUILDING CO.'S YARD, MOSS, NORWAY.

is of wood. Wooden fenders are provided along the hull, and a wood stem is bolted to the bow. The rudder and its fittings are of iron.

In building this hull the bottom is poured in wooden forms up to the top of the longitudinal hull beam at the lower corners of the hull. For the sides, the framing is either plastered or poured, depending upon different conditions. For a small boat such as the Namsenfjord the reinforcement, both the rounds and metal lath, is erected for the total height of the hull and concrete poured in between the metal lath, using it as a form. The outside and the inside of the lath are then plastered to give the full section. In higher boats this process is duplicated, except that short heights of lath are put in at a time, thus leaving a smaller lift of concrete at one operation. For a still larger boat, where the unsupported reinforcement would be too flimsy, the usual wooden forms are used for the main frames and the concrete poured as it would be in any concrete construction. The construction is continuous for the whole hull, however, so that no joints are left in the surfaces exposed to water. Concrete is placed continuously, even though it takes twenty-four or more hours of work.

The same variation between plastered and poured concrete holds for the deck construction, convenience of operation, and the stiffness of the reinforcing being the governing considerations. It is reported that the Namsenfjord is remarkably stable and steady.

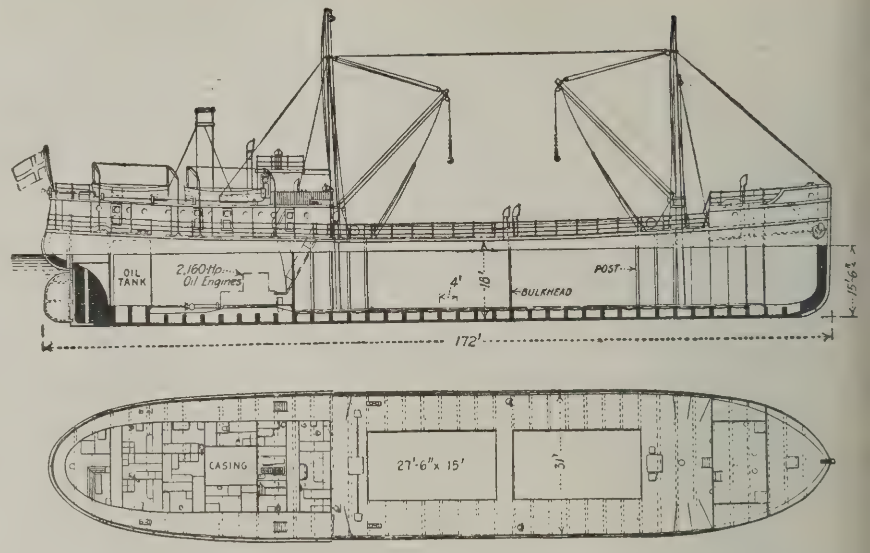
A drawing of the sixteen-hundred-ton boat is also given herewith. This boat is 172 ft. long, has a width of 31 ft., a height of 18 ft., and draws about 15½ ft. of water. In general details it resembles the design of the Namsenfjord except, of course, it is made stronger to meet the increased size. It is also provided with considerably increased accommodation for crew. Two of these boats are on the ways at Moss. The company has also contracted for a four-thousand-ton capacity ore carrier for the Sydvaranger Mining Co. of Norway. This boat is 254 ft. long, 40 ft. wide, and has a 19½-ft. draught, and is to be equipped with two 300-b.h.p. Diesel engines. The keel has been laid for one of these large boats, but further construction is awaiting the authorisation of the Norwegian Marine Registry, which has a committee investigating it preliminary to authorising its registration under the Norwegian flag.

The concrete ships built according to the Fougner system have a ratio of dead weight to displacement from 12 to 15 per cent. greater than the similar ratio in steel ships.

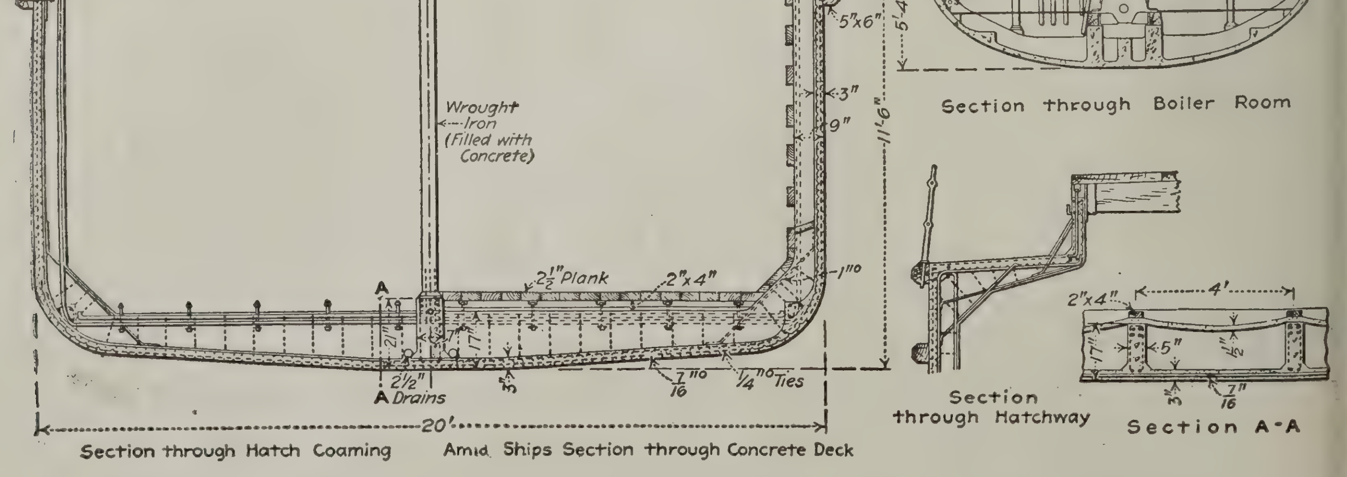
A sketch is given on page 51 of the Moss yard. There are here eight covered ways parallel to the water front, on which are poured the smaller vessels. These ways are about 100 ft. long and are reached at their rear by a narrow-gauge railroad track connected with the concrete plant. At the front of the ways is a marine railway leading to deep water. The boats are constructed under the covered ways in timber platforms resting on rollers on the rails of the shipways. By means of these rollers the completed hull is moved dow on the marine railway, from which it launched sideways.

Beyond the marine railway are tw covered shipways for the construction the vessels of larger size. These a about 400 ft. long, and will accommoda the largest boats now under constructio in the yards. The large ways are of th normal beam-and-pile type, and th launching from them is to be done ste on.

Behind the shipways is the concre plant. The sand, gravel, and cement a brought in by boat to the wharves at th end of the narrow-gauge track and tran ported by cars on that track to bins ov the mixing plant. Here two mixers tu out the concrete into cars on the narro gauge track, which run behind the sma ways. Hooks travelling on overhea longitudinal rails in the middle of eac shipway pick up the concrete buckets the small cars and sliding down the wa by gravity deposit the concrete whenev



GENERAL LAY-OUT OF A 1 600-TON REINFORCED-CONCRETE POWER-DRIVEN SHIP



Section through Hatch Coaming
Amid Ships Section through Concrete Deck
Section through Boiler Room
Section through Hatchway
Section A-A

DETAILS OF CONSTRUCTION OF THE 320-TON REINFORCED CONCRETE STEAMER "NAMSENFJORD."

lesired for the hull. The hooks and uckets are hauled back by power winches. 'or the large ways the same performance s repeated; that is, the tracks run to the ear end of the ways, where longitudinal verhead trolleys pick up the buckets to istribute the concrete anywhere along the hipway. All power is electric, bought rom the municipality, which runs a ydro-electric plant.

Considerable experimenting has been one with the concrete materials for the hips, but a conclusion has finally been eached to use a mixture of 1 :2½ of cement nd a natural gravel found locally, the rgest particles of which do not run over quarter of an inch. In the earlier work a :1½:2 or 1 :1½ :2½ concrete, with the large ggregate not running over half an inch, as used, but later developments showed ie small aggregate to work better around ie steel in the small sections of the ships. 'articular attention is paid to the mixing nd proportioning of the concrete, expert ngineers being employed as inspectors or this part of the work. It is claimed iat the resulting concrete is quite watergħt.

The floating dry dock which has recently een completed by the company is the first oncrete dry dock to be built. This is of ie usual type of design, with poured and lastered sides and poured frames. It is be used by a company building pleaure craft, and will float a ship up to about ne hundred tons.

The foregoing notes and the accomanying illustrations are reproduced from ie "Engineering News-Record."

ENQUIRIES ANSWERED.

Cost of One-Storey Factory Sheds.

Correspondent writes: "Kindly state hat is the approximate cost per yard up. of one-storey brick manufactory sheds uilt in blocks, with saw-tooth roof walls bout 12 ft. high."

—It is difficult to give any estimate of ost at the present time, as so much deends upon the district and the facilities or carrying out the work. A very rough pproximation may be from £4 to £5 per ard super. of ground area.

Henry Adams.

Builder's Draughtsmanship.

R. G. E. writes: "I have recently been ppointed an instructor in builder's raughtsmanship to a newly formed class f disabled men, who have no previous nowledge of this work, and I am also isabled myself.

"The training lasts eighteen weeks (or nger if necessary) and the idea is to give iem a general knowledge of the work, to nable them to make a start in a builder's ffice. I am fully aware that they cannot btain a thorough knowledge of the subct in this short period. It is necessary, ierefore, to condense the work considerbly, and I should be glad if you would indly give me a general scheme of work nd inform me of suitable and inexpensive ooks, etc."

—A builder's draughtsman must have n aptitude for drawing, even if he has no nowledge of it whatever when he comiences his course of instruction, but it is mistake to suppose that a draughtsman merely a man who can make a "scale rawing" from a rough sketch. He must ave a knowledge of construction suitable the work he has to do, so that he may e able to draw out accurate and workmanlike details without a foreman standing over him all the time. These considerations will give a general idea of the course of instruction that should be followed.

In the first place the young draughtsman should learn what instruments are necessary, and how to use them, including drawing board, tee square, and set squares. He should be told that all main lines and centre lines should be put in with the tee square, only using the set squares for subsidiary lines. Then he should practise copying simple plans, with plain colouring to indicate the difference between brickwork, stonework, wood, and concrete. He should then take up the systematic study of building construction, from some elementary text-book, such as Burrell's "Elementary Building Construction and Drawing" (Longmans, 2s. 6d.). At the same time he should take every opportunity to follow the actual construction of buildings, not only to see how each mechanic does his portion, but also how the whole is put together, how trenches are marked out and dug, how scaffolding is erected and struck, how centering is formed and held in position, and everything else appertaining to the work. He will find the large coloured plates of building construction issued by Cassell's very useful as giving a grouped view of such things as bonding brickwork under all conditions, making doors and partitions of all kinds, roof trusses, sashes, etc. Ironwork is best left until the other materials have been dealt with, and should be preceded by a study of simple stresses, from such a book as "Strains in Ironwork" (Spon, 5s.). After this he will be able to profit by the study of larger works, such as "Cassell's Building Construction" (Cassell, 7s. 6d.).

Following on building construction he should take up the study of builders' quantities from such books as Stephenson's "Quantity Student's Assistant" (Batsford, 3s. 6d.) finishing up with the standard work, Leaning's "Quantity Surveying" (Spon, 15s.). He will also find when he has to make up estimates, which is often part of the duty of a builder's draughtsman, that such a book as Rea's "How to Estimate" (Batsford, 7s. 6d. net) is of incalculable value.

The work of the builder's draughtsman does not need to be highly finished, but it should be clear and correct, every drawing having the scale stated upon it, the name of the job, and a description of what is shown, particularly in the case of details. Drawings should not be looked upon as a mere assemblage of lines; every endeavour should be made to realise in the mind's eye the solidity of the representation, even so far as to be able mentally to turn the piece round and see it from any position. No solid progress can be made in designing until this faculty is fully realised. Some people are, of course, better able to visualise than others, but for the builder, architect, and engineer, it is an essential qualification.

As to estimates, the main points are speed and accuracy. The accuracy must be from the start, but speed with accuracy can only be obtained after considerable practice and experience, having a knowledge not only of the prices of materials and labour, but also of the best methods of carrying out the work. Middleton's "Building Materials" (Batsford, 10s. net) and Vol. III. of Rivington's "Notes on Building Construction" are the best general books on the nature and sources of the various materials.

Henry Adams.

SURVEYORS AND THE EMPLOYMENT OF DISABLED MEN.

At the last meeting of the Surveyors' Institution—the President (Mr. A. L. Ryde) in the chair—Mr. L. G. Pilkington, representative of the Y.M.C.A., read a paper on "The Employment in the Surveyors' Profession of Men Disabled in the War."

Mr. George Corderoy, in moving a vote of thanks, said that Mr. Pilkington was assured of their sympathetic interest merely by the announcement of the heading of his paper. A great number of the members of the Institution had served or were serving upon committees dealing with the general problem of the employment of men discharged as a result of the war. He was sure the Council would welcome the suggestion Mr. Pilkington had made to add yet another to its many committees to deal specifically with this subject. The Architects' and Surveyors' Approved Society, of the Managing Committee of which he had the honour to be chairman, also had a benevolent fund attached to it which, he thought, could render perhaps effective help with regard to certain classes of cases. He was sure that, speaking on behalf of the society, he might say they would be very glad to do all they could in that way. But there was one caveat that he thought might be made against any suggestion with regard to members of that Institution, that it was possible to train men, who had not had previous training in that direction, for the highly technical work which members of the Institution were called upon to perform. They would have no difficulty in finding work for all qualified surveyors who were members of the Institution, or assisting those whose training had been suspended by the war; but he did not think very much help in the way of direct entry into the surveyors' profession for men who had had no previous training for it could be looked for from that Institution. But there was probably more to be done by means of subordinate employment by land agents and others, who would be requiring labour in various ways. Forestry, for example, seemed to offer extensive opportunities for employment.

Mr. J. H. Sabin said he did not understand Mr. Pilkington to suggest that any man discharged from the Army should immediately sit, or be trained to sit, for the Surveyors' Institution examination, or that he should try to enter into the Royal Institute of British Architects. What he understood the reader of the paper to suggest was that there were a great many trades and professions into which they might be able to guide men who would otherwise be unable to find employment.

Mr. William Woodward, F.R.I.B.A., said they would all agree that the work done by the Y.M.C.A. throughout the war deserved the warmest thanks of every individual in the nation. A great obligation and a solemn duty rested upon them to do all they possibly could to conserve the interests of the thousands of their fellow professional men who had gone to fight for their country. Mr. Woodward concluded with a reference to the R.I.B.A.'s opposition to the continuance of Government restrictions on building operations after the war.

A vote of thanks was given to the reader of the paper, and the President intimated that Mr. Pilkington's suggestion that a committee should be formed to consider the subject would be brought before the Council at their next meeting.

COMPETITION.

Estate of Cottages, Maidstone.

The borough of Maidstone invites architects and others to submit designs for laying out an estate for 170 cottages. Premiums of £50, £30, and £20 will be awarded to the three designs adjudged to be the best by Mr. H. V. Lanchester, F.R.I.B.A., acting in co-operation with the Housing Committee. The premiated designs will become the property of the promoters. Particulars may be obtained on or after Ferbuary 1, 1918, on application to the Town Clerk, 72, King Street, Maidstone. Applications are to be accompanied by a deposit of 10s., which will be refunded on receipt of a design or the return of the particulars within fourteen days.

PROPOSED SCHOOL OF CIVIC DESIGN FOR MANCHESTER.

A movement is on foot to found a school of civic designing in connection with the Manchester School of Architecture. At present Manchester looks to Liverpool for light on these matters, as the rival city already possesses such a school, endowed some time ago by Lord Leverhulme. London, too, has its architectural schools.

A beginning is to be made in Manchester by a course of lectures by Professor Beresford Pite, of the Royal College of Art, London, the cost of which is being defrayed by a Manchester benefactor who desires to remain anonymous.

"The purpose of the benefactor," Professor A. C. Dickie, of the Manchester University, informed a Manchester "Daily Dispatch" representative, "is to stimulate public opinion generally in the meaning of civic designing. It is a subject which raises the whole question of city environment—town planning, hygiene, topography, sociology, civic law, as well as the purely professional side of designing. It is a subject than concerns not only architects, but all who are concerned in local government, whether as public representatives or civic employees."

NEWS ITEMS.

A Meeting of Property Owners.

The Property Owners' Protection Association, Ltd., will hold a meeting at Cannon Street Hotel on Thursday, January 31, at 4 p.m., when an address will be given by the president on "The Conscription of Wealth: The Position of Property Owners."

Garden City Houses for Lincoln.

The Ministry of Munitions have notified Lincoln City Council that they will erect 300 houses at Lincoln on a site chosen by the Council, and that the Government will provide the labour, material, and the money. The houses are to be laid out on garden city lines, with twelve dwellings to the acre. Rents will be fixed conjointly by the Government, the City Council, and representatives of employers and employees.

Pleasure and Profit.

"All work and no play" is a mistaken policy, even in these strenuous times. Recreation is, in fact, a pleasant duty, imposed on us by the necessity of "keeping fit." Duty and pleasure were very happily combined in a whist-drive and dance recently organised by the employees of Messrs. Winget, Ltd., The Cape, Warwick, makers of the Winget concrete-block and slab-making machines that are rendering such excellent national service in providing the means for rapid and substantial building. Not only was the entertainment very enjoyable, but it gained an added zest from the knowledge that the proceeds (which amounted to £10) would be handed to the local branch of the British Red Cross Society.

Promotion for Mr. Percy Thomas.

Mr. Percy Thomas, of the firm of Ivor Jones and Percy Thomas, architects, of Cardiff, has been promoted to the rank of captain, and has been appointed Adjutant R.E. of the 13th Corps Troops. Mr. Thomas joined the Artists' Rifles in 1915, and, after obtaining his commission in the Royal Engineers, proceeded to France on active service in 1916.

The Institution of Civil Engineers.

The Council of the Institution of Civil Engineers have resolved that its examination in engineering drawing, bills of quantities, and elementary knowledge of specifications, which is at present an optional subject, shall be, after January 1, 1919, obligatory for all candidates for Associate membership. The examination is intended to be a suitable test of the knowledge and skill which should be acquired during the requisite training in engineering offices, and will apply to the several main departments of practice. The tests in drawing and quantities may be conducted in part by means of the production of drawings and quantities which have been prepared by candidates under their employers and teachers. Students of the institution may be allowed to take the examination prior to the time at which they become candidates for election as Associate members.

Re-seating a Church.

The Bishop of Stepney has dedicated the re-seating and panelling in oak of the Parish Church of Stoke Newington. This is the gift of Mrs. Eve, in memory of Alderman W. Eve, who was churchwarden for over thirty years. The work was carried out under the supervision of Messrs. W. Eve and Sons, of 10, Union Court, E.C., by Messrs. Samuel Elliott and Sons, of Reading.

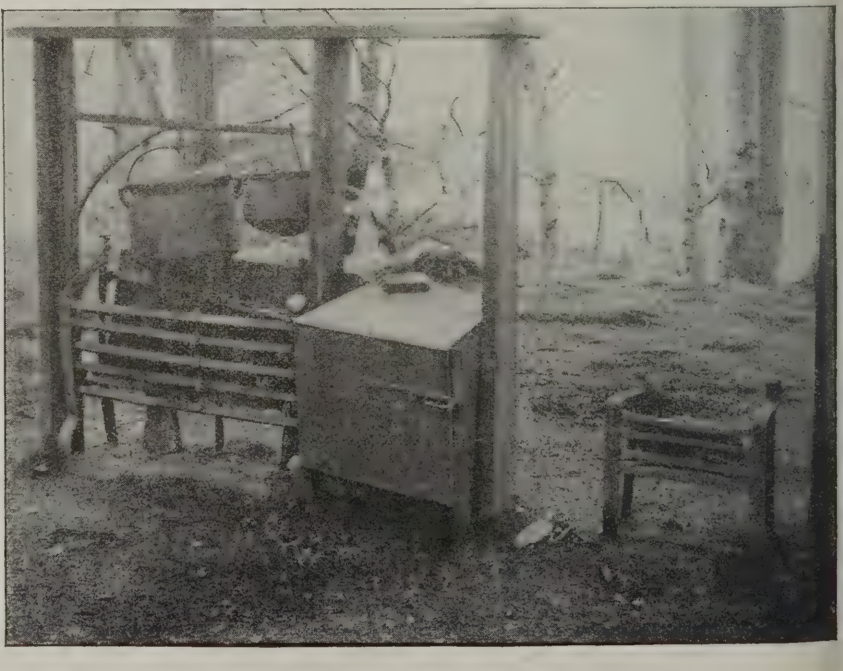
AN OLD BAKING OVEN.

It is more or less common knowled
that in the early days of baking ovens
much taste was lavished on their appe
ance as on the parlour hob grates wi
which they were contemporary; but whi
many examples of the latter are exta
and even in use to-day, it is rare that
baking oven of the period is encounter

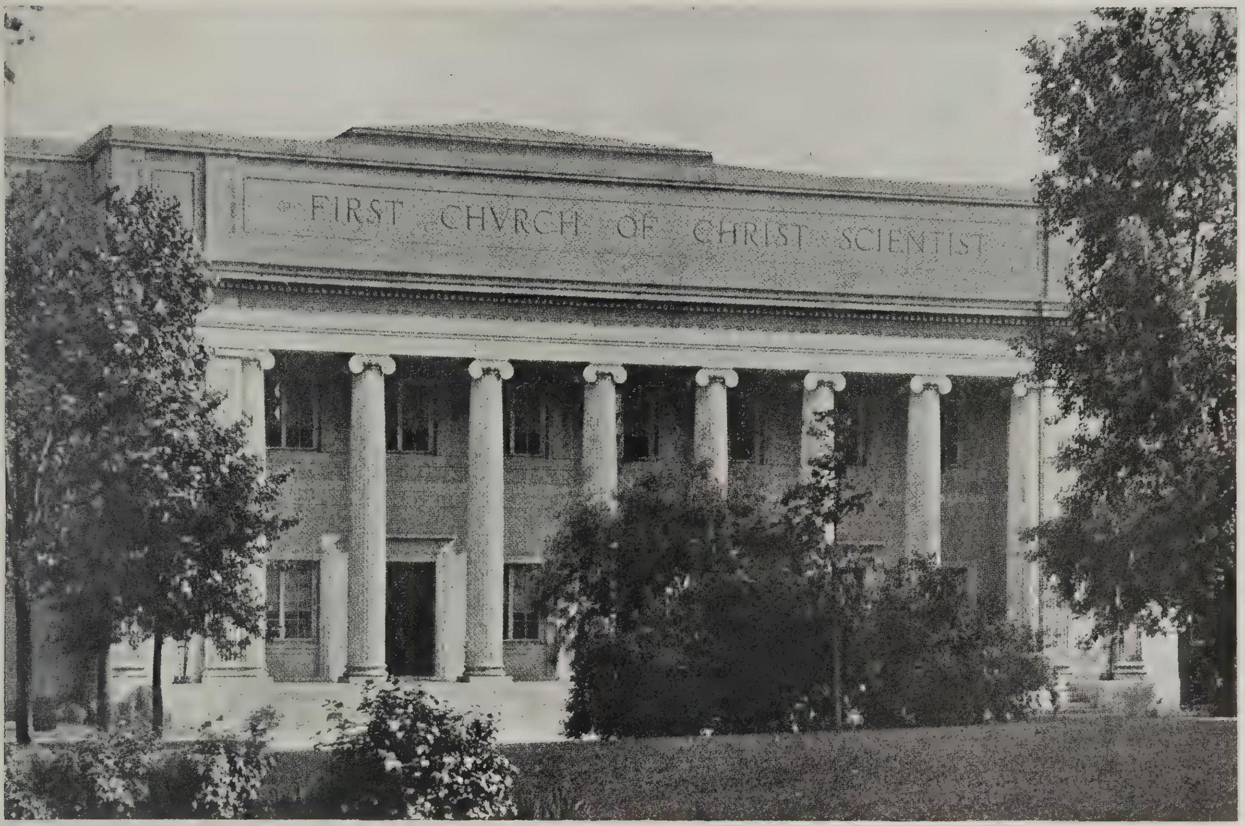
The recent sale of Raeburn's famo
portrait of the last Laird of the Cl
McNab has awakened a renewed inter
in the locality of Killin, where, at K
nell House, the Laird resided. The hou
is situated close to the southern bank
the river Dochart and not far from the p
turesque bridge which spans that wat
There is an entrance in the parapet of
bridge to the burial ground of the clan,
an island in mid-stream, and to view
tomb one must pass a group of antiq
looking cooking appliances, removed so
years ago from Kinnell House, and pla
here in the open, as objects of curios
Amongst them will be noticed one of
baking ovens referred to, the door
which, in addition to a particularly refi
moulding round its edge, is embellish
with a very chaste decoration, a spray
hop foliage framing a medallion conta
ing a charming Cupid, modelled by Fl
man, which immediately betrays the sou
of its origin, namely, the works of Car
Company, near Falkirk.

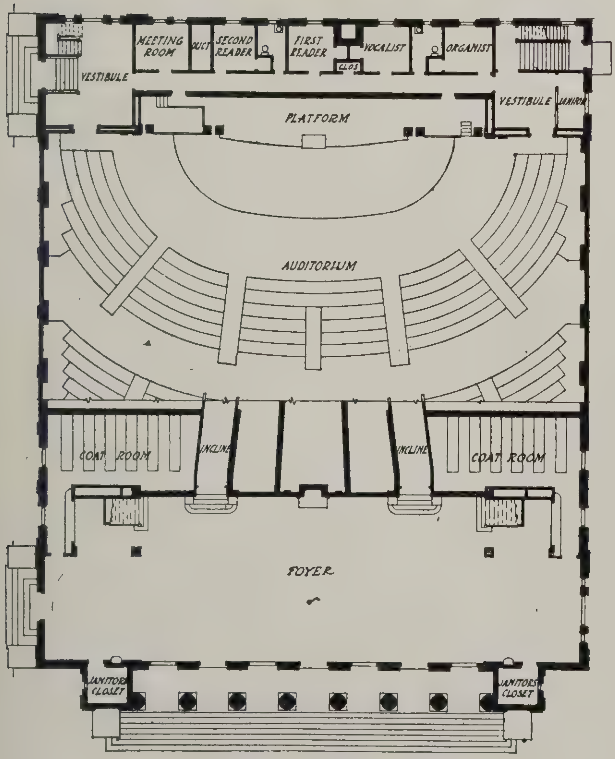
It is known that Flaxman modelled
this firm about the end of the eightee
century some figure subjects which are p
served with the famous collection of l
relief wood carvings, but it has only n
transpired that his work was employed
so utilitarian an object as a cooking ran
Yet what a contrast this oven door p
sents, with its dainty though practi
wrought-iron latch, to the doors and dre
ful mounts which many modern manuf
turers firmly believe are what the pu
wants.

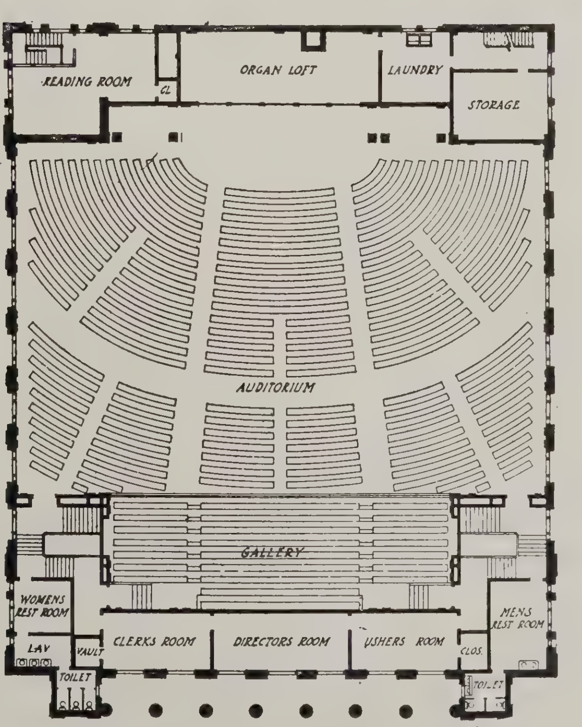
These McNab relics are probably o
a hundred years old. The oven has s
cast-iron shelves $\frac{3}{8}$ in. thick, which w
only fitted to very early examples. The
grate and swey are of rather roug
forged wrought-iron, and are proba
from the same source as the oven and p



AN OLD BAKING OVEN AT KILLIN, SCOTLAND.







SECOND FLOOR PLAN

MODERN AMERICAN ARCHITECTURE (SERIES II). L.—FIRST CHURCH OF CHRIST, SCIENTIST, DETROIT, MICH., U.S.A.

SMITH, HINCHMAN, AND GRYLLS, ARCHITECTS.

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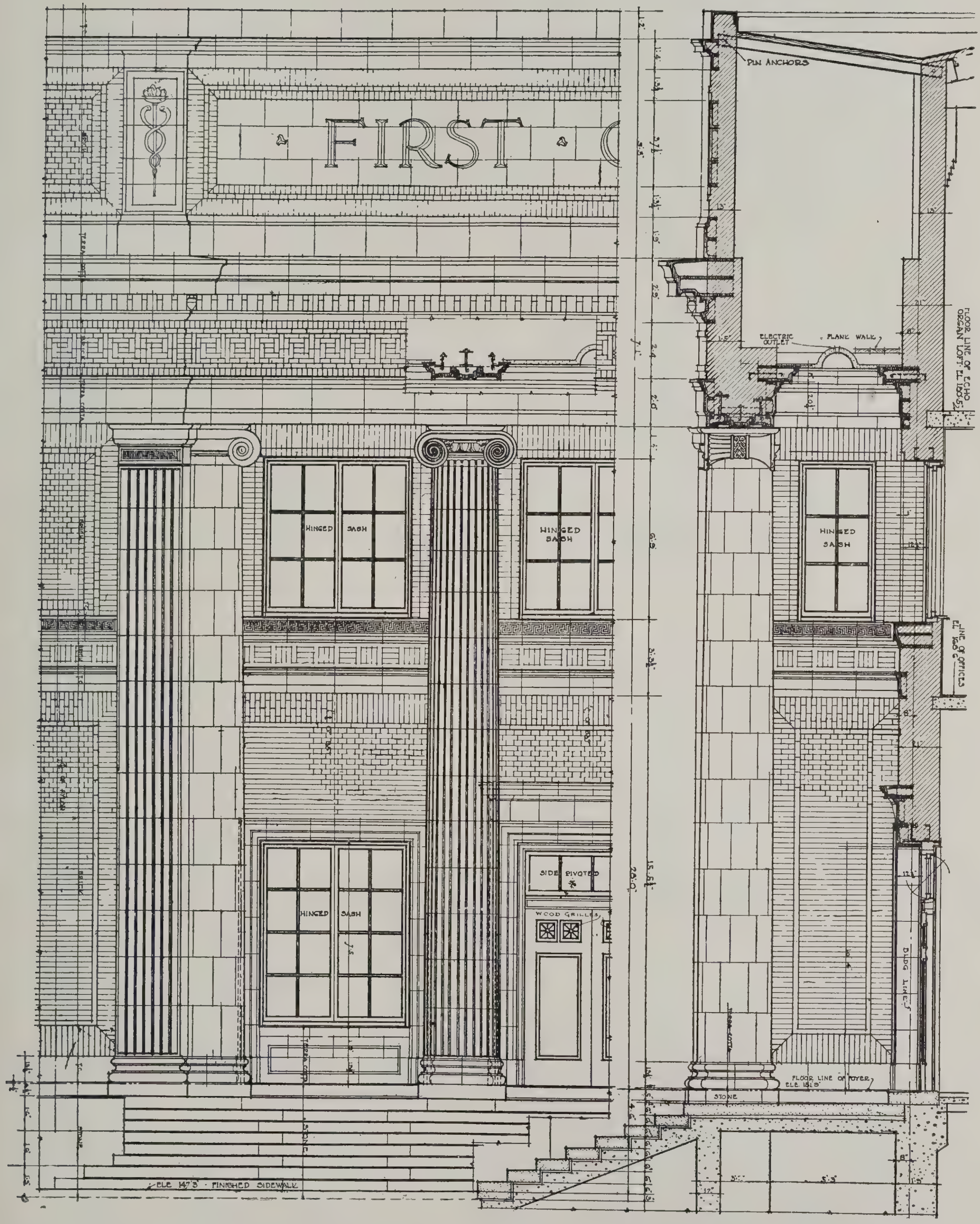
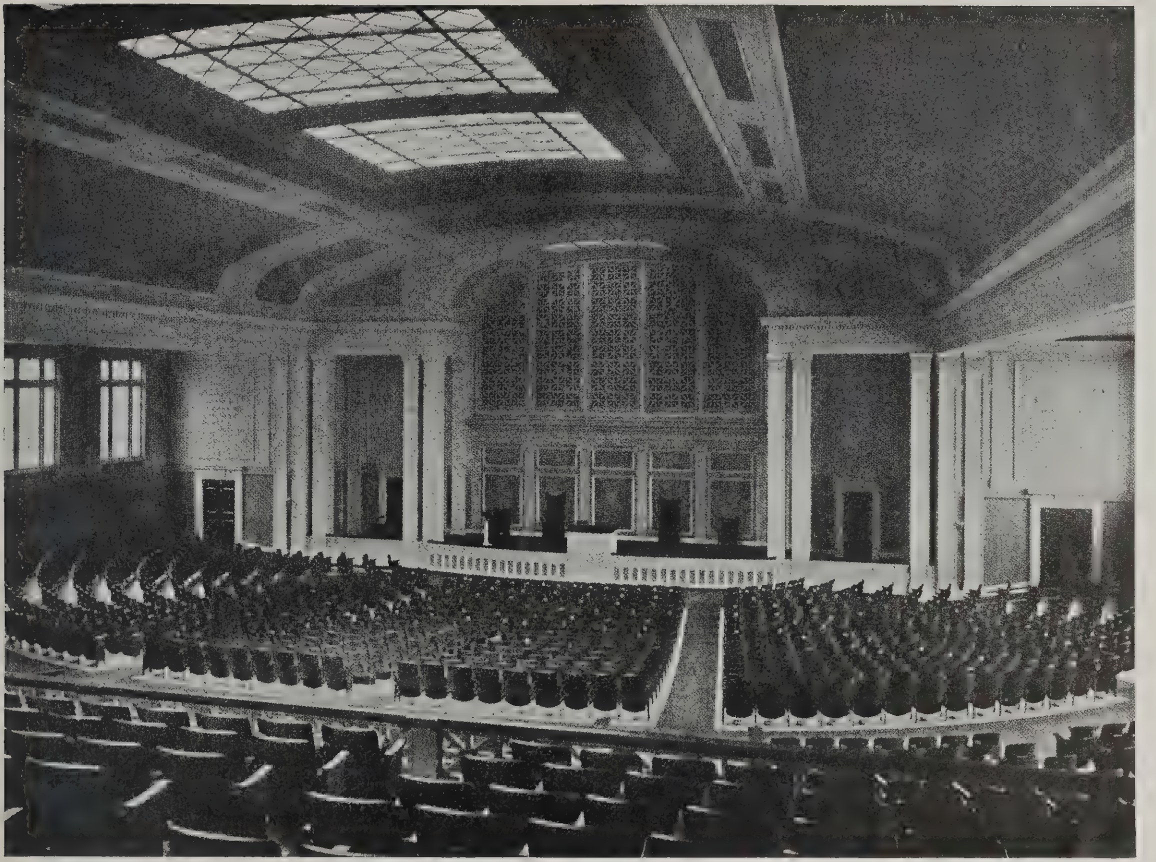
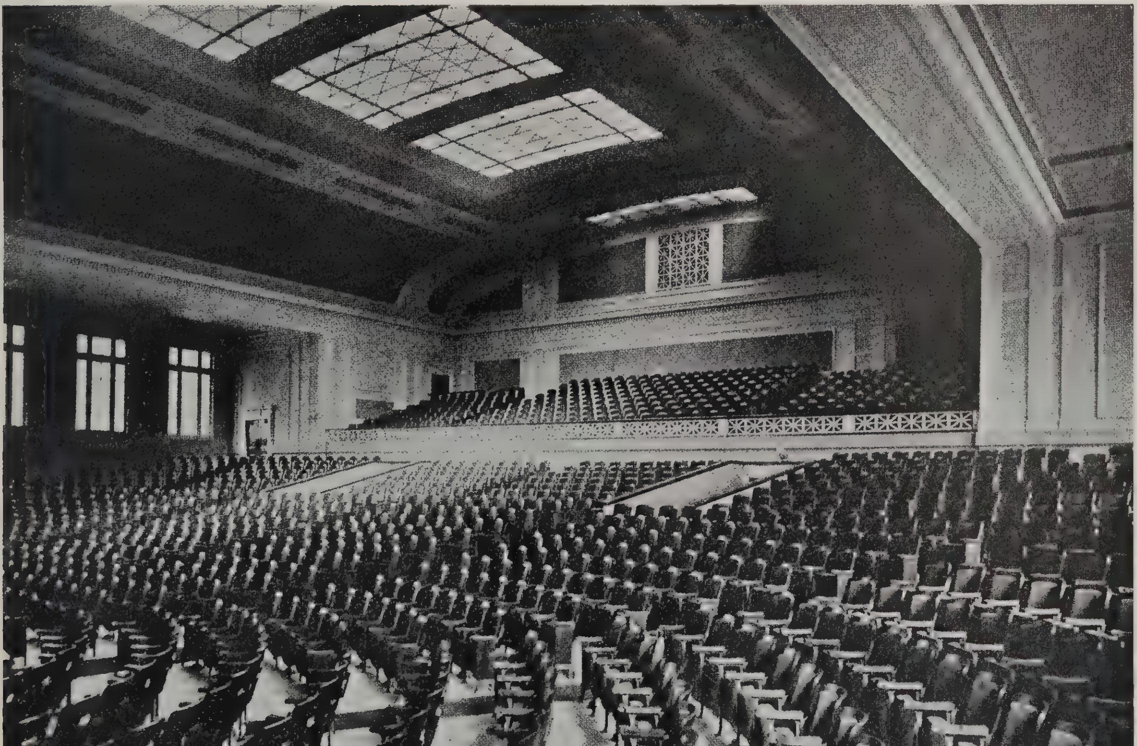


MODERN AMERICAN ARCHITECTURE (SERIES III.). I.—FIRST CHURCH OF CHRIST, SCIENTIST, DETROIT, MICH., U.S.A.: DETAIL OF PRINCIPAL ELEVATION.

SMITH, HINCHMAN, AND GRYLLS, ARCHITECTS.



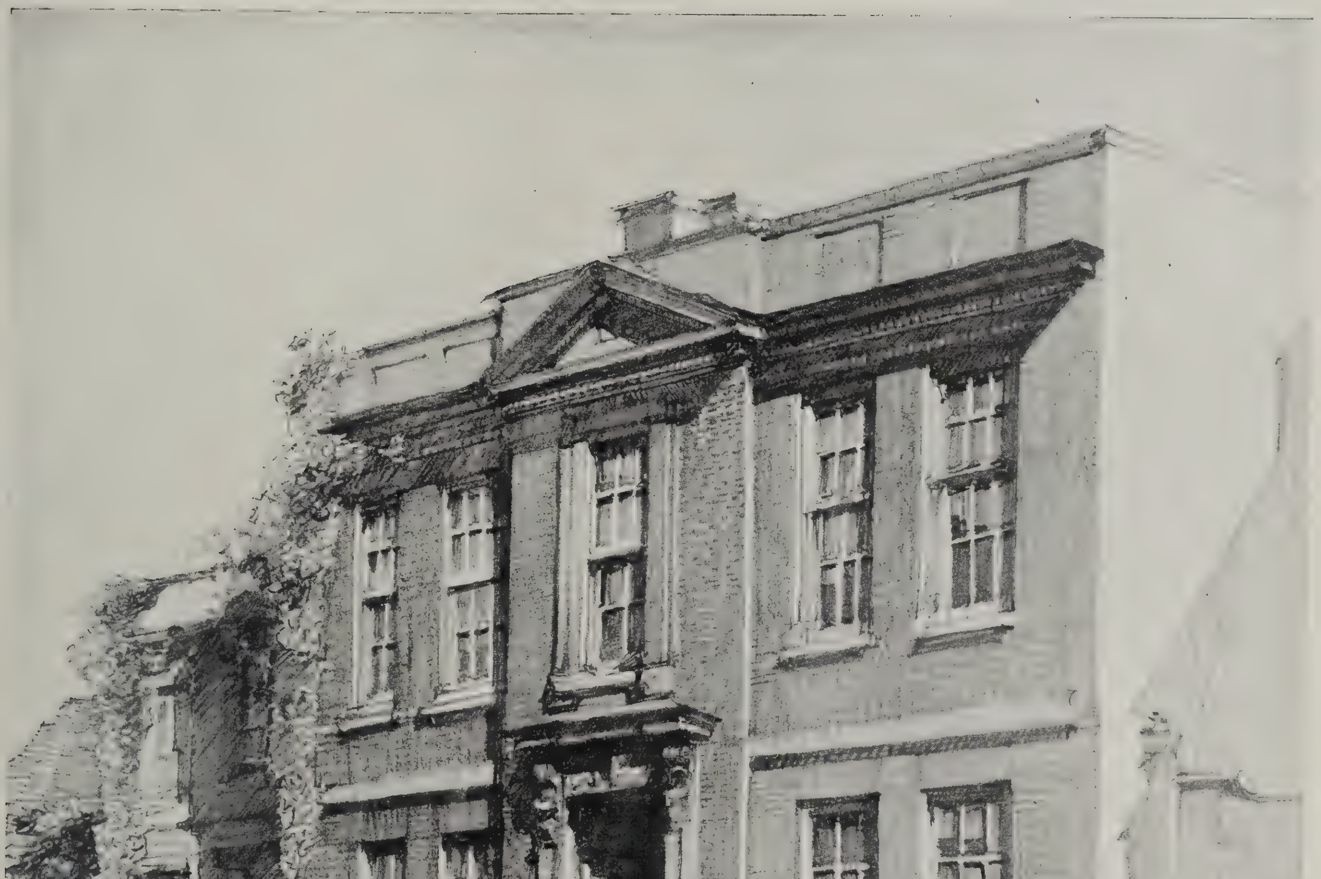
View of Auditorium, looking towards Platform.



View of Auditorium, looking towards Gallery.

MODERN AMERICAN ARCHITECTURE (SERIES III.). II.—FIRST CHURCH OF CHRIST, SCIENTIST, DETROIT, MICH., U.S.A.

SMITH, HINCHMAN, AND GRYLLS, ARCHITECTS.



ARCHITECTURAL DRAWINGS AND SKETCHES. XI.—HOUSE IN DOWNING STREET, FARNHAM.

From a pencil drawing by Harold Falkner.

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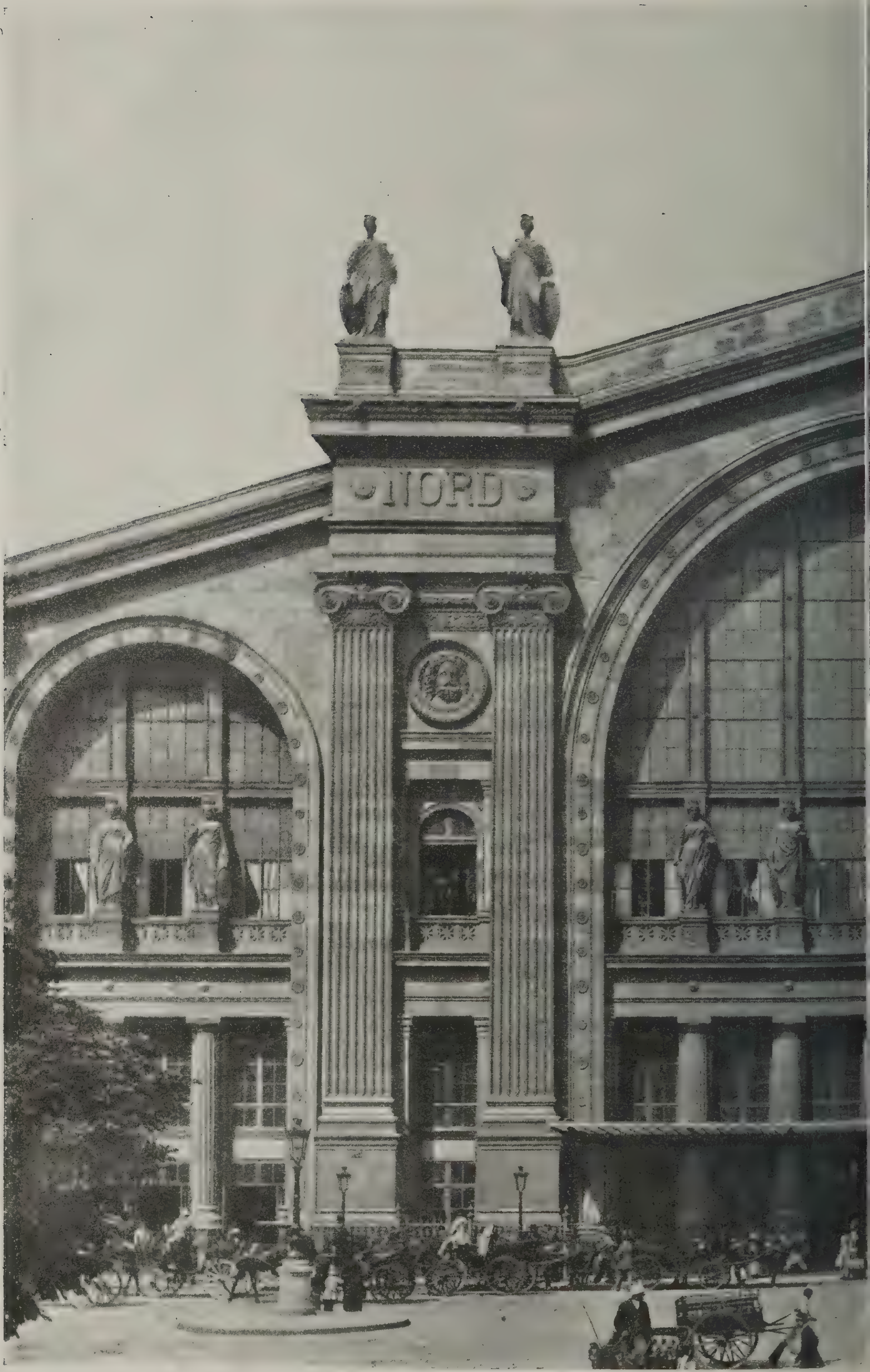
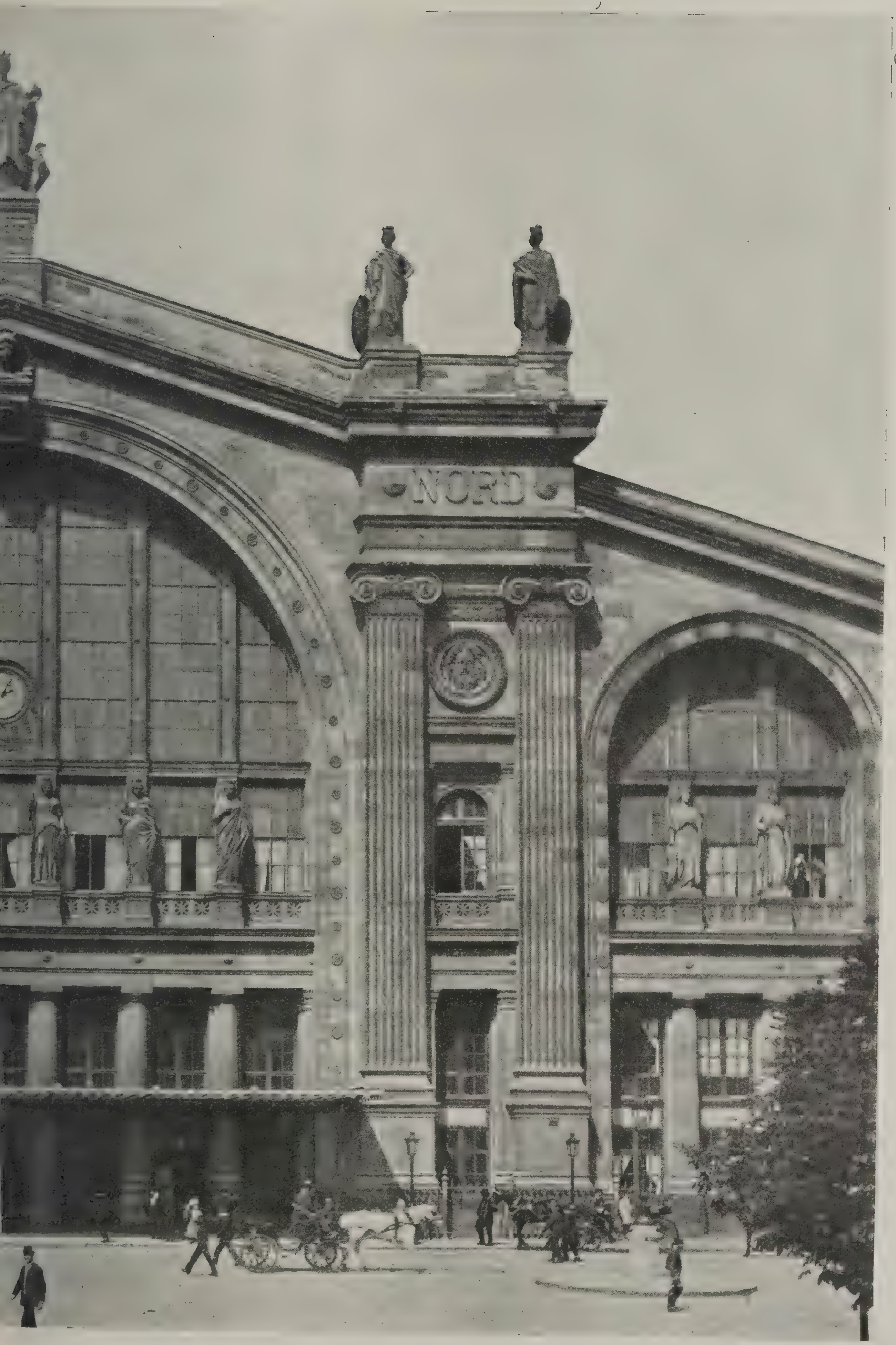


MODERN FRENCH ARCHITECTURE. XV.—THE GA

J. I. HI



NORD, PARIS: CENTRAL PORTION OF MAIN FAÇADE.
ARCHITECT.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

FEBRUARY 6, 1918. TOTHILL STREET, WESTMINSTER. VOLUME 47. No. 1205.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must e rigorously excluded. Our readers, we are sure, ill gladly assist in promoting this object, which is n item in national economy. They can co-operate ith us effectually in either of two ways—(1) By lacing a direct subscription for this Journal, or (2) y placing with a newsagent an order for its regular elivery. Casual purchases—now here, now there—reate a serious discrepancy between supply and emand, and cause wastage of effort and materials.

A PARAGRAPH relating to the R.I.B.A. resolution on post-war control appeared in a recent issue of the "Newcastle Daily Journal," and eems to deserve passing notice, as it is one of the traws that show which way the wind blows. Our yneside contemporary hints darkly that "there are owerful influences at work to continue this control, hich would mean the maintenance of a huge and, for he most part, inefficient bureaucracy," and it adds the ounsel that "All societies directly and indirectly terested in the housing problem of the future should oin forces in opposing what office-holders and officeeekers are striving to perpetuate." To what extent, at all, these hints or suspicions of sinister influences re founded on fact, or how far they are mere fignents of nervous foreboding, can only be conjectured. hese points, indeed, are of minor importance in comarison with the broad significance of the protest—hich is, that patience has its limits—that the really xtraordinary fortitude with which architects and uilders have endured the sufferings imposed upon hem by State restrictions is well-nigh exhausted, and ill certainly not survive any clear indication that the gony is to be either unduly protracted or unnecesarily accentuated.

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How acute has become the distress among architects eprived by State action of their means of livelihood as made painfully evident last week by the issue a public appeal from the Architects' Benevolent ociety. This appeal, we may be very sure, has been sued with the utmost reluctance, and postponed til the latest possible moment; and we may feel qually certain that it would never have been put forard at all if the situation had not become desperate. ot the issue of the appeal, but the necessity for it, e regard as a grave scandal. To invoke public aid is stasteful in the last degree to those who have been iven to it. They must have felt that there are worse miliations than an appeal to public generosity in a ne of exceptional stress; and they were probably rtified in this view by the cardinal fact that, after all, chitects are suffering in the national interests. On counts we hold the Benevolent Society to be thorghly justified in its morally courageous determinaon to issue, in the last resort, this public appeal, to ich we very cordially wish the most complete ccess. We must repeat, however, that the necessity r it is nothing short of a national scandal. It is a rry reflection on the ineptitude of Governments and the imperfections of our social system. In any tionally and justly governed State, prohibition in the tional interest would be accompanied by compensation. Looked at fairly and squarely, it is a monstrous thing that the State should say, in effect, "You shall not practise your legitimate profession, and the sudden loss of your means of livelihood is entirely your own affair—we will not hold ourselves responsible for the consequences." Now that these consequences are being very bitterly realised, and have come into public notoriety, there is no need to continue to hush up this scandal. For surely it is iniquitous in a high degree that a civilised State should have the power to suspend an industry indefinitely, with no corresponding power to make restitution in some form to those whom its action condemns to loss of the means of subsistence. It might at least have found employment for all whom its action has made derelict; or, failing that, it should have allocated a sum sufficient to preserve its victims from the extremity of distress indicated in the Benevolent Society's appeal. We suggest, in all sincerity, that the Institute should boldly formulate a claim for compensation of members impoverished by the action of the State.

* * * *

In commenting upon the R.I.B.A. resolution on post-war restrictions on building operations, we expressed the opinion that sudden cessation of Government control immediately after the war would be a much greater evil than continuance for a short period until men and materials became generally available. A mad rush upon the first scanty supplies would lead to unchecked cornering and profiteering, preferential treatment, and all the evils of a helter-skelter scramble, in which some would get more than their fair share of the still scarce commodities, while others would come empty away. If, as we suppose, the choice is between bureaucracy and anarchy, we vote for the former as being the less virulent of two poisons. Of the one we have had, it is true, more than enough; but we should tolerate it as long as it seems necessary as an inhibition of the other, but not a moment later. It must not be overlooked, however, that the fear of "cornering" by municipal and other authorities is of the very essence of the resolution. This cornering must not be. Control may be continued to secure even-handed distribution. To apply it to any kind of cornering would be a grave abuse that would not be tolerated. Therefore, we do not at all deprecate the growing impatience at restriction, nor its manifestation in the R.I.B.A. resolution, which, however, was so drafted as to leave too little to the discretion of the Council.

* * * *

A rather severe indictment of "The Average London House," which "The Times" of January 29 prints as "from a correspondent," would carry more weight if it were less sarcastic. There is some truth in it, however, and it serves a good purpose in drawing attention to a rather important yet much neglected aspect of the housing question. "Many a mistress of a London house, from choice or necessity now doing without or with fewer servants, has lately for the first time become acquainted with her own dwelling, and knows at last how bad it is." It has been planned, it seems, for the sake of the drawing-room and the dining-room, "in which the householders of previous generations heavily entertained their friends." "Heavily" is very good. There was about the whole performance a ponderosity that was faithfully reflected in the thickly framed mirror over the clumsily bracketed mantelpiece, which supported also a colossal timepiece flanked with bronze ornaments of considerable tonnage and poundage. It was the abode of the "heavy father," who produced heavy decanters for the mollification of elderly men having weighty influence in commerce, or of younger men having "substantial prospects," as the rather infelicitous phrase used to go. The former might advantage the host or his sons, the latter his daughters. And the port was heavier than the decanters, the subsequent flow of wit and humour heavier than either; while the "festive mahogany" that "groaned" under its loads was necessarily of massive build. In those days "substantial" was a word of might—a man had or sought a "substantial income": "substantial residences" were advertised, and the furniture put into them was very, very substantial. Your "drawing-room suite" had enough timber in it to furnish forth three sets in the Chippendale mode.

* * * *

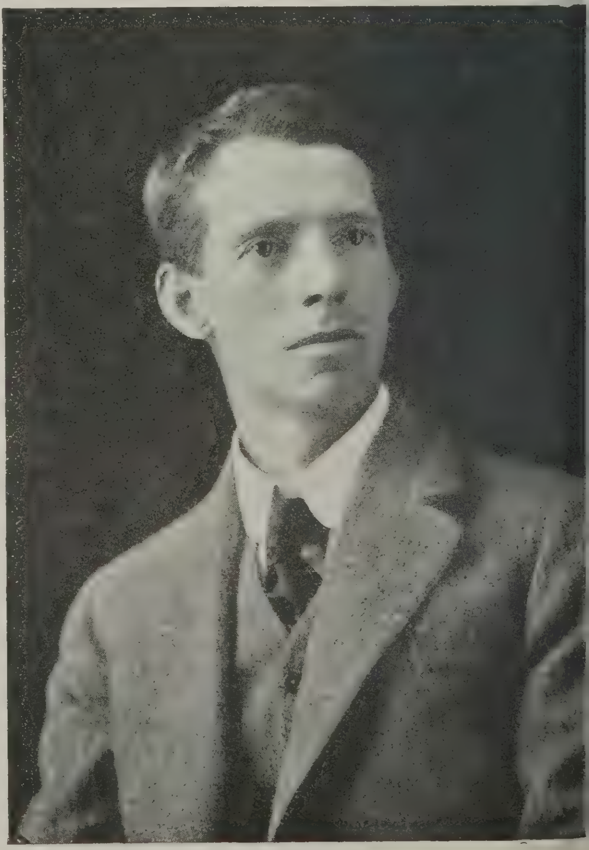
Above the drawing-room there is a bedroom that is unnecessarily big because it had to be made the same size as the drawing-room. There are attics, some without fireplaces; and "at the foot of a dark and breakneck flight of stone stairs, is the dugout called the kitchen, set about with various dungeon-cells called pantry, scullery, and so forth." Then follow some rather querulous complaints about the fittings. Sash-windows are an offence because they can never be more than half-open, and because the cords sometimes break; casements are preferred—possibly because the writer is unacquainted with their drawbacks. There are actually wooden floors in the house! Plaster or stone floors are apparently advocated; for the writer says: "From France we have learned nothing about windows; from America nothing about clothes-closets, water-supply, and sanitation; from Italy, nothing about plaster or stone floors." If the writer is referring to London houses that were built more than fifty years ago (as his description seems to imply), his complaint of our insular ignorance may pass unchallenged: our heavy fathers were less mobile and cosmopolitan than we are. Yet we have not allowed travel and observation to destroy our idiosyncrasies. French windows, American sanitation, Italian floors, may be vastly better than ours (though we should take leave to doubt every article of such an assertion); yet "a poor thing, but mine own," is still a saw of might. Rightly or wrongly, we prefer to keep the English home as English as possible, rather than to mongrelise it in the manner insinuated. This may not be altogether wise, but it is perfectly natural. Apart from that question, however, we feel bound to protest against the unfairness of holding up an out-of-date and altogether untypical style of dwelling as "the average London house." It is nothing of the kind.

* * * *

Man-power economy is still sadly to seek. Some considerable time ago the Institute took what steps it could to persuade the authorities to avoid as far as possible the waste of force involved in putting men to utterly unsuitable occupations. Architects and other specially trained men might, one may venture to suggest, be more profitably employed than in cleaning windows and emptying slops. We trust that the Institute has been very successful in its representations on this matter; but we happen to know of cases outside this kindly solicitude in which man-power is being sadly misapplied. Nice discrimination is, we freely admit, quite out of the question, especially among the fighting units. Nevertheless, it seems clear that the men on home service—men who, from physical or other causes, are kept out of the fighting—are being treated with deplorable disregard for their qualifications, and that this wholesale waste of talent and energy could be in a great measure avoided. We shall recur to this subject next week.

MR. ALBERT H. HODGE, R.B.S.

BY the death of Mr. Albert Hodge at the early
of forty-two we lose untimely a sculptor of c
siderable achievement and more promise.
the time of his death he was engaged on the Capt
Scott memorial, for which, it is understood, he has
designs from which the work can be completed.
several excellent reasons Mr. Hodge stood high
favour with architects. In the first place, he
undergone an architectural training. He served
eight years in the office of Mr. William Leiper, R.S.
and crowned his student career with high distincti
winning, at the Glasgow School of Art, gold, sil
and four bronze medals, and taking first place in
United Kingdom Architectural Designs Examinat
Further, this training had given him a very clear
definite view of sculpture as the handmaid of archit
ture, and he could be trusted to work in this sy
pathetic spirit when commissioned to embellish
building. Hence much of his work is to be found
town halls, such as those of Hull, Cardiff, Glamorg
and Deptford. About his work there was an air
simplicity, modesty, and directness—attributes tha
a marked degree characterised the man, whom it
a delight and an inspiration to meet in conve
Although his youth was so rich in promise he
decidedly not one of those with whom precocity is
most remarkable trait. Year by year his exhibits
the Academy showed a continuously expanding tal
and it is probable that he had not reached the
maturity of his powers. Great things were to
expected from an artist in whom extraordin
dexterity was subordinated to fine feeling.
imagination, and utter sincerity. Given time, hea
and opportunity, he would have become our lead
British sculptor. What he had already done
sufficient to assure him an established reputation a
artist of rare individuality; but at forty-two he
not reached the full maturity of his genius.



THE LATE MR. ALBERT H. HODGE, R.B.S.

HERE AND THERE.

FROM a considered list (interminably long it would be) of books that are not books, I would exempt certain catalogues or guide-books, especially some that relate to museums. No architect knowing the value and interest of Bloomsbury, South Kensington, and university guide-books would refuse them the hospitality of his library. Compiled by scholars and experts eager to impart all they know and with difficulty restrained from doing it, those catalogues summarise all the essential knowledge relating to the subjects with which they deal, and one is almost tempted to claim that the condensed form in which the information is conveyed is a positive advantage to a busy professional man avid of facts and having but little time to bestow upon discursive reading.

* * * *

A very fair example of the best type of guide-book is the Ashmolean Museum Summary Guide, which the architect should certainly add to his collection. In two respects it falls short of the excellence of the national guide-books—it is not illustrated, and it has no index. Of these two very serious omissions the latter should be an indictable offence. How very inconsistent—a guide to the contents of a museum offers no guidance to its own contents, except a meagre list. Out upon it! For the book is packed with interesting facts; and facts are particularly "stubborn things" when you want to turn them out in a hurry from a book without an index.

* * * *

Like most other museums, the Ashmolean had its origin in a private collection—that of the Tradescants of South Lambeth. John Tradescant the father, who died in 1637, and John Tradescant the son, who died in 1662, had travelled much in search of plants, and the botanical garden which they formed at Vauxhall had as an addendum a museum, popularly known as "Tradescant's Ark," containing, besides botanical specimens, a section comprising "mechanick artificiall works in carvings, turnings, sowings, and paintings." It contained also a department of "warlike instruments," and a small collection of coins and medals. In 1659 these collections were settled by deed of gift on Elias Ashmole, but afterwards Tradescant incontinently left them by will to his wife, instructing her to leave them to Oxford or Cambridge. On Tradescant's death Ashmole brought a suit in Chancery against the widow, and established his claim to the gift, which in 1667 he made over to Oxford University on condition that a building to house them should be erected. This was done, the building in Broad Street being finished in 1683. Let it be noted that a chemical laboratory was included, for Oxford has been often charged, always more or less unjustly, with neglect of the physical sciences. Moreover, it is to the credit of Oxford that the Ashmolean is the oldest museum in these islands.

* * * *

Scientific interests grew apace, accessions came in steadily, and the first building was found inadequate. Books, manuscripts, and coins were transferred to the Bodleian. What was to be done with the "marbles"? Selden, who died in 1654, had anticipated Ashmole by bequeathing to the University a number of ancient sculptures; Lord Henry Howard, in 1667, and Sir George Wheler, in 1683, had given similar collections; and Mr. Philip Duncan, while the nineteenth century was yet young, increased the embarrassment of riches by the addition of a series of casts from the antique. Dr. Francis Randolph, who died in 1796, left a thousand pounds towards a fund for housing the marbles and other works of art, and in 1839 the University, adding that sum to the money that had been left by Sir Robert Taylor for the erection of a modern language institution, decided to include in the building scheme a Randolph Gallery for sculpture. In 1842 the situation was rather complicated by the gift of plaster models of all Sir Francis Chantrey's sculptures, and of numerous casts from the antique. Then, and for some years afterwards, the Ashmolean Museum collections were scattered in several different buildings.

* * * *

Sir A. J. Evans, who in 1884 became keeper of the Ashmolean Museum, was most energetic in his advocacy of suitable housing for the treasures of which he had charge; and finally Mr. Charles Fortnum gave his fine collection, with ten thousand pounds towards endowment of a new building, which the University agreed to erect at a cost of fifteen thousand pounds. Mr. Fortnum left by will a further ten thousand, with a freehold estate bringing in £300 a year. Charles Robert Cockerell, R.A., won the competition with a design of which the details are closely modelled on those of the Temple of Apollo Epicurius at Bassae (Ictinus, architect). This building comprises the Randolph Gallery. Large additions to Cockerell's building were made in 1892-1895 from designs by Mr. H. Wilkinson Moore. To this block a new studio for the Slade Professor was added in 1900; and in 1908 a new gallery for Egyptian and Sudanese antiquities was built at the west end of the Randolph Gallery from designs by Mr. Walter E. Mills, who worked harmoniously on Cockerell's lines.

* * * *

As the admirable guide to the Ashmolean reminds us, the collection of sculpture is the first of its kind ever brought to England, and marks the revival of interest in Hellenism; the Arundel inscriptions include several important monuments; and the gallery of Egyptian sculpture, besides being, like the Greek marbles, the first of their kind imported, have also the like distinction of comprising many pieces of high interest and first-rate importance. Unfortunately, Lord Pomfret had a mistaken notion (one that was prevalent in his day) about his precious fragments of Greek sculpture. He thought they would look better if made whole, and he "confided the restoration to one Guelfi, who proceeded in a reckless and incompetent manner. When a limb was broken, he amputated the remains and substituted a tasteless invention of his own. When a head was missing, he invented one which was inappropriate." In fastening the parts together, he used iron clamps, which went on rusting and destroying the stone until, in 1888, they were drilled out, bronze clamps being substituted—a rather delicate operation. What strongly tempted Lord Pomfret to these adventures was not merely the then prevalent craze for restoration, but the fact that many of the most interesting statues were headless. This is distinctly a provocative condition. No artist can see a torso without imagining a head for it, nor Milo's Venus without devising arms for it. And every student of architecture forms the image of a complete Parthenon, and has his own ideas for a new lay-out for Charing Cross and Trafalgar Square.

DIOGENES.

CHARACTER AND DESIGN IN COTTAGE BUILDING.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

THERE is one aspect of our subject which so far we have only very lightly touched upon, and that is the artistic aspect—the aspect which reveals the character of the village and of those who live therein.

Character in Design.

It may occur to you that this will depend upon the choice of the materials used and upon the plan.

Up to a point this is so, but just as dress may reveal much more than the quality of the material and the use to which it is put, so the appearance of a housing scheme may excite trains of thought revealing character that will transcend any emotion that can be aroused through the mere prettiness of the substance or cleverness of the plan.

A housing scheme may be economically planned. It may include the provision of all sorts of amenities, such as open spaces, tree-lined boulevards, and grass verges. It may comply with all the recognised requirements of sanitation and hygiene, and it may embody in its arrangement and construction, and in the choice of the materials used, all the latest discoveries of science and all the ideas that inventive genius can command, and yet it may lack that human interest, character, and emotional expression which only the artist can supply.

The Artistic Aspect.

And so we get the artistic aspect, the revelation of things felt but not always seen, the expression of character and sentiment, the embodiment of tradition and the presentation of ideals, ennobling qualities which, when used as the outer garments of a cottage, a village, or a town can convert it from a mass of bricks and mortar into a powerful inspiration to human thought and endeavour.

In considering a subject so elusive it is difficult to make rules. Rules have exceptions, dogma is dangerous; and perhaps by reference to examples, by criticism, and by suggestion, I can get nearest to what I really mean.

Tendencies in Cottage Design.

Let us, then, for a moment consider the respective merits of different tendencies in modern cottage design. Let us take those most easily recognised and most frequently seen.

First, then, there is the kind of cottage which in its design and appearance is so powerful a characterisation that it more than suggests the caricature. Failure in this direction is perhaps rare, resulting as it does from an exuberance of misdirected genius, and genius is always rare. A commoner failure is the misappropriation of mild character, and the commonest—evidence of thought and purpose so confused as to result in the lack of any expression of character whatsoever.

So much, then, for force and direction of character when applied to the design of a cottage or, for the matter of that, when applied to the appearance of anything.

The Caricature Cottage.

Let us take concrete cases—some designs for cottages that I have recently seen and which have been produced with the intention of expressing those essential characteristics of a cottage: simplicity and homeliness have so far overstepped the bounds of common sense and propriety that it is obvious from their appearance that they are the homes of mediæval woodmen and ancient men. This is what I call the caricature; or, without going quite so far, it may appear from the character of the cottage intended t be the home of a respectable working man that it is th home of a city clerk, it is so villa-like, so neat and s trim. Or, so confused may be the thinking, that th door may look like the entrance to a monastery and th living-room window like the bay of a conservator and perhaps that not of very elegant design.

Now this question of how to express that simplici and homeliness which the design of the moder cottage, as the home of the modern working ma ought to express, is really the problem with which w are faced.

I would point out that whilst essentially the cottag is the home of the working man and must always b designed to appear so, modern social conditions hav separated this class into, I think, about three arbitrar divisions, dependent mostly upon occupation and t some extent upon the artificial or rustic character o the locality in which each may be living.

Three Types of Occupants.

Fundamentally there are two types or castes of th working man, one of whom works in a town and engaged in some urban industry, and the other wh works on the land. But quite recently, and largel through the influence of the garden-city movemen there has sprung up a third, or intermediary typ which, whilst engaged in an industry other than tha of agriculture (frequently to be described as almos sedentary), at the same time may be said to live o the land.

Now it is obvious that exactly the same kind o housing scheme cannot be said to express adequatel the varying character of these three different types o occupants. No one would suggest, except the cran and those who are susceptible of confused thinkin that the rural cottage was a suitable type of cottag for erection in a town, nor would anyone, on the othe hand, suggest that the trim terrace cottage of the tow was suitable for erection in the country. But ther may exist considerable diversity of opinion as t whether a terrace cottage, architecturally somewha formal and urban (of which, by the way, there are no very few good examples remaining) were more sui able as a type for erection in the garden city an garden suburb than the cottage from the country wit its thatched roof, its tiny windows, half-timbered fram ing and bricknogging, and other primitive methods o construction which suggest labour on the land.

It is clear that the modern housing scheme which erected in close association with an urban area cal for a third, or intermediary, type of design. As shall show later, the character of the cottage must b at one with the whole lay-out of the surrounding are and it is perhaps more in the character of the road gardens, and greens that our intermediate type ca best be seen.

Tradition in Cottage Building.

Anyone interested in architecture and who cares t wander about the middle ring of London, will fin though not without careful seeking, a wealth of trad tion in cottage building that it would be a sacrilege t ignore. There are examples of most beautiful doo ways, delightful little balconies (a distinctly urba feature), neat and delicately proportioned window which, together enriching the façades of simpl refined, and dignified little houses, gave an intere which is urban in character, and which embodies trad tions of the best kind.

These were, of course, the last examples of th Renaissance, which through three centuries had bee iding local and traditional methods of building into annels that have developed from world-civilisations up by scholars and cultured men.

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* Portion of the sixth and last of a series of lectures delivered at University College, London.

Rise of the Urban Cottage.

I have pointed out to you that in the eighteenth ntury many of the villages in England were transmed by the influence of urban dwellers into small vns. Some migrated thereto, and, purchasing land, cted thereon small houses and shops. These were uilt with classic façades, and had sash windows and ofs that were slated or tiled.

This gave these newer villages and small towns a tinctly urban character as opposed to the rural aracter of the more secluded villages that lay in at one may describe as back land.

Writers at the time have described the rural cottage a simple structure with small casement windows d a roof that was thatched, and tell us that the ban cottages had sash windows and were tiled.

But the urban cottages of the eighteenth century, ough broader and bolder in their detail than the ban cottages of half a century later, were less ined.

The former showed a breadth of woodwork in eir window frames and a luscious richness in the tails of their cornices and door heads which gave ace under the influence of the Adam brothers to efinement such as has never been surpassed—a pe of cottage very frequently to be met with, ough not without seeking, in the early nineteenth-ntury portions of any town.

Three Types of Cottage.

Here, then, we may be said to have three types of ttages distinguished historically — the primi-e type found almost exclusively in remote rural stricts, the early Renaissance type and the later naissance type—and in distinguishing these rhaps the most distinctive characteristic is to be n in the treatment of the windows. And without ing into niceties of distinction between earlier and er Renaissance window treatments, which, hough very technical, are very real, I would point t that the greatest difference between the primitive glish cottage and the Renaissance example, be it her early or late, lies in the difference in window atment. In the earlier example we get the case-nt and in the later the sash. But in accepting this a distinction between the style of the primitive glish cottage and the Renaissance example we ist not be led away into thinking that it is a local ssification simply because we find casemented ttages in profusion in the country and hung sashes iversal in the town. The real difference is an his-ical and not a local one, and it is only because gnation has existed in rural districts during the st century and because extraordinary changes have ken place in the town, that we find casements more equent in the country and sashes in town. Still, ere are many examples of cottages in rural districts at have sash windows; but what is of importance us is that during and after the eighteenth century ere was very little purely rural cottage work done, that it is a natural historical sequence of events at we have come to regard the sash as an urban ther than a rural feature in cottage design.

Windows in Garden City and Suburb.

Now, what is the right window to use in the garden y and garden suburb of to-day? As a matter of ct the casement window is the type that has been ed almost universally. It may be held that con-uctionally the casement window is a much better nd of window for fulfilling the requirements of a ttage than a sash. This is a controversial question which I have a definite view, but into which, rhaps, I had better not plunge just now.

I do not mind saying, however, that I am inclined to think that the sash is the better of the two, but my real point is that the casement window was adopted by the early promoters of garden cities and suburbs as being the most characteristic window for a cottage, not on the ground that it was cheaper, constructionally better, or more suited to the requirements of those who had to use it, but entirely on the ground that it suggested at once the rural cottage as opposed to the urban cottage, which of all things the early promoters of garden city principles wished at heart to exemplify. And they were right. When Bournville and Port Sunlight were erected they were in every sense a reply, couched in the most picturesque and most easily understood language, to the awful conditions of urban housing that half a century of industrialism had brought into being. And whilst it would have been impossible to excite an uneducated public to enthuse over a type of cottage that only differed from the usual urban cottage of to-day in the more subtle refinements of its details and proportions, it was very easy to appeal to their emotions by a more obvious if not cruder method, namely, by reverting to a type different in kind as well as in general design.

But, like all undertakings that are carried to extremes, the intention has constantly broken down, and so we see in most of our earlier examples of garden villages, cottages too primitive in character to house comfortably an occupant engaged all day in the artificial atmosphere of a town.

The age for propagandist illustration and extremist opinion in the matter of improved housing is passing, and we are arriving at a time when we must decide as to what best meets practical needs and as to what are the natural traditions that we should carry on.

(*To be concluded.*)

THE PLATES.

The Gate Entrance to St. Bartholomew the Great, Smithfield.

IN our issue for January 16 we illustrated the war shrine which has lately been erected, from the designs of Sir Aston Webb, R.A., at the gate entrance to St. Bartholomew the Great, Smithfield. We now show an interesting view of the gate entrance itself, which has been modified recently by the removal of the facing tiles and the exposure of the ancient timber work beneath.

The Mint, London.

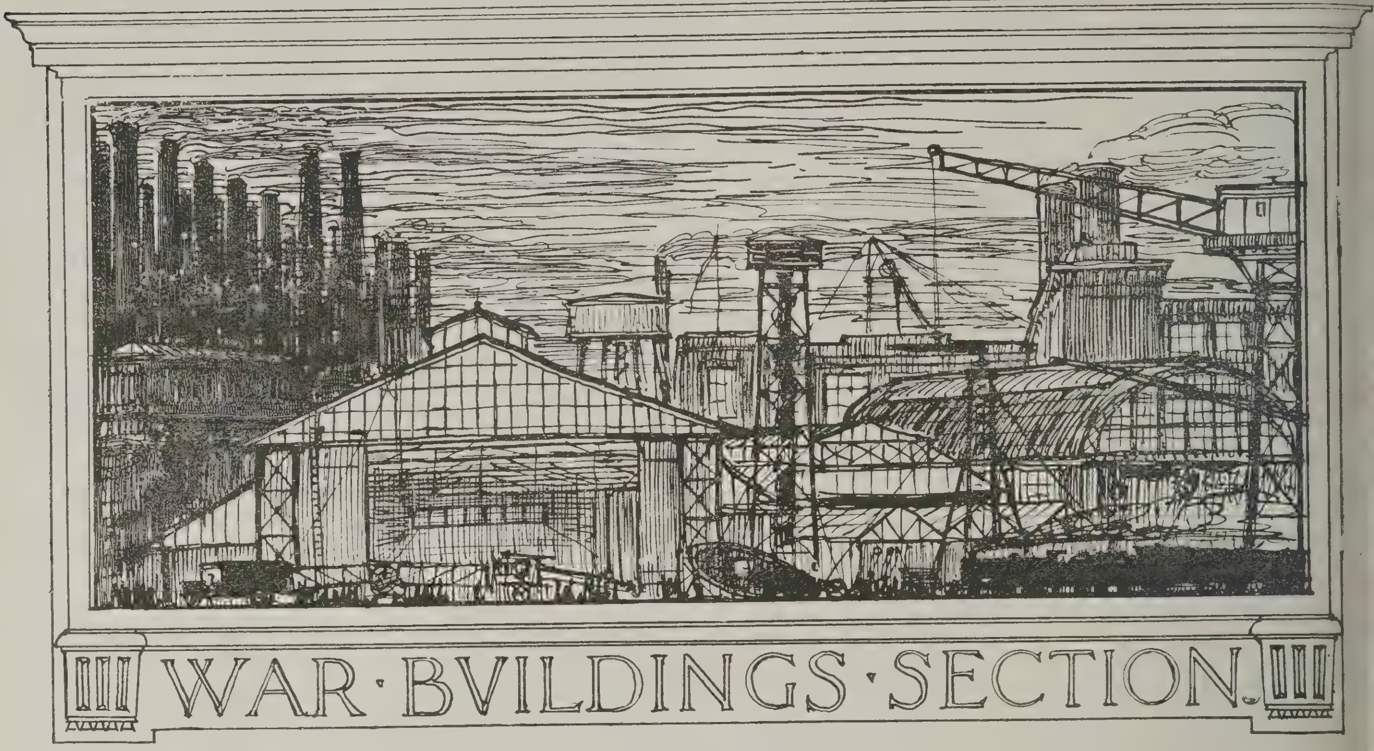
The Royal Mint, on Tower Hill, was erected during the years 1805-1810 from the designs of J. Johnson. Subsequently alterations were made and lodges added by Sir Robert Smirke. Little is known of Johnson, but it appears that he practised in Berners Street. His original drawings for the Mint are preserved in the Royal Institute's collection.

Plans for Working-class Houses.

These are the first eight of a series of twelve plans included with the important memorandum on working-class housing just issued by the Local Government Board. The remainder are reproduced, together with the full text of the memorandum, under the War Buildings Section in this issue.

Bronze Work in the Bank of Toronto.

One of the largest and most interesting pieces of genuine bronze work in Canada is the ceiling light over the banking space of the Bank of Toronto. This is 60 ft. long by 45 ft. wide, of a lace-like character, and virtually self-supporting, though attached to the roof principals, which are out of sight. The illustration also shows the mezzanine balustrade, counter railing, entrances, etc., which are all in bronze.


WAR·BVILDINGS·SECTION.

HOUSES FOR THE WORKING CLASSES.

A HIGHLY valuable memorandum entitled "The Housing of the Working Classes Acts, 1890 to 1909," has just been issued by the Local Government Board for the use of local authorities in the provision and arrangement of houses for the working classes. The plans which accompany it are all reproduced in this issue—some on succeeding pages and the remainder in the supplementary plates.

Object of Memorandum.

In this memorandum the Local Government Board have summarised their views upon certain points in regard to the provision and arrangement of houses for the working classes. It supersedes the Board's memorandum of March 25, 1913, on the same subject.

Class of Persons for whom Accommodation is to be Provided.

As a general rule, experience shows that houses suitable for the accommodation of persons of the better paid working class community (who can afford to pay a rent which will provide a fair return on the capital employed) are more likely to be provided by private enterprise than houses at low rents which are necessary for the accommodation of the poorer classes. It will, therefore, frequently be the case that the efforts of the local authority will be directed mainly to the provision of houses of the latter class.

Types of Houses Most Suitable.

The type of dwelling required in ordinary circumstances is the self-contained house. Occasionally there may be a demand for accommodation of a limited character—*e.g.*, accommodation for newly married couples or for aged persons without a family—and in such cases it may be desirable to meet the demand by the provision of two-storey houses consisting of two self-contained dwellings; but, generally, it would seem desirable to avoid the erection of blocks of buildings containing a series of tenements.

Standard of Construction.

In designing houses for the working classes the first consideration is that they shall meet the reasonable needs of the class of persons whom it is proposed to accommodate. It is desirable that simplicity of design and economy in construction and general arrangements should be aimed at, but it would be well to bear in mind that houses erected by a local authority ought generally to be such as will be a model or standard for working class dwellings which may be erected by private persons.

Moreover, if a local authority propose to borrow money to defray the cost of the erection of houses, the Board in fixing the period for the repayment of the loan could not allow the maximum period adopted by them for this purpose—namely, sixty years, unless the houses were to be built substantially.

As a general rule, therefore, the standard of construction should, in the Board's opinion, be such that, with only a moderate annual outlay for repairs, the houses should be capable of being maintained in a state in all respects fit for human habitation for a period of at least sixty years. Special circumstances may, however, exist in some cases rendering it desirable for the local authority to construct houses of a less permanent character and to repay the loan in a much shorter period than sixty years.

Selection of Site.

Due regard should be paid to the healthiness of the site and to the convenience of its situation for the prospective tenants.

The advantages or disadvantages of the site as regards levels, drainage, water supply, and means of access by roads or paths should be considered in relation the purchase price. A site which can purchased at a low price may prove e pensive to build on.

In rural areas it will frequently be p sible to secure a site with a frontage to roadway repairable by the inhabitants large.

Number of Buildings and Arrangeme of Streets and Buildings on Site.

(a) Generally.—The arrangement houses on the site, and to some extent t design of the houses will depend upon t size, situation, and character of the lar but the site should be so utilised as secure ample open space in connecti with the houses and the best possil aspect for the living rooms. The lat point should be borne in mind in fixi the direction of any new streets requir to be constructed.

Overcrowding of houses on a site shou be avoided. Although some regard mu be paid to the cost of the site and the tent to which street works will be nec sary, the number of houses to be erect on each acre of land should be kept wi in strictly reasonable limits, and in t connection it should be borne in mi that the annual charges in respect of loan for the land, spread over the ma mum period of eighty years, would most cases constitute a comparativ small proportion of the total annual c of providing the houses. On the basis twelve houses to the acre and land at £1 per acre, the loan charges per house land purchase would only be about 2d week.

Landowners in some cases ha expressed themselves willing to prov land for housing purposes at a nomin price or free of cost. Local authorit are empowered to accept a donation land for these purposes under Section of the Housing, Town Planning, etc., A 1909, and wherever they are able ɔtain suitable land on these favourable rms they should promptly avail themlves of the opportunity.

(b) Forecourts.—It is desirable that ɔuses should be set back from the street ne, so as to allow small gardens or foreɔurts to intervene between the houses ıd the street.

(c) Building in rows.—It is undesirable at long rows of houses without a break ould be constructed; and, as a rule, the ımber of houses in a continuous row ould not exceed eight or ten. Long ws are open to objection, not only cause overcrowding of houses on the e may be the result, but also because ey give a monotonous and depressing ɔpearance and prevent easy intercomunication between streets.

(d) Back streets.—Where houses are ected in rows back streets may be necesry for the removal of house refuse and livery of coals, goods, etc., and for the ying of sewers. Though back streets, if t properly controlled and lighted, may a source of nuisance, they have the vantage, in addition to their use for nitary purposes, of affording a second eans of access to the dwellings, thereby ving objectionable traffic through the ing rooms.

(e) Detached or semi-detached cottages. The erection of detached or semitached cottages is somewhat more stly than the erection of cottages in ɔcks of four or more, though there may a saving in cost by avoiding the provin of back streets. If the circumstances e such as to justify any additional expenure involved, the erection of detached or ni-detached cottages may be of advange. In this connection it may be obved that larger ground area and fronte will, as a rule, be more often possible rural areas than in urban areas, and ere large gardens are provided and a ghtly increased rent is charged the ıants should be able to secure some ren in the form of garden produce, etc.

(f) Some suggestions as to arrangements of streets and houses on site.—Such arrangements of streets and buildings as the following would probably reduce the expenditure on land and on street construction, viz.: (1) The formation of groups of houses on back land, access to the houses being either from comparatively narrow streets (if the houses are set well back from the street line and if the streets are not intended or likely to become important thoroughfares) or from streets of full width of which portions might be turfed or planted with trees; (2) the grouping of a number of houses round three sides of a quadrangle or other open space which would serve as a recreation ground for the occupants of the houses (see Section 11 of the Housing of the Working Classes Act, 1903); and (3) the formation of the street which will be the means of approach for vehicles at the back of the houses, leaving a stretch of garden ground between the fronts of the houses and a footway giving access to those fronts.

(g) Frontage of houses.—In the laying out and development of sites for building, the execution of street works is frequently a source of heavy expense, especially where the streets are wide and of costly construction. This produces a tendency to limit the frontages to an undesirable extent, with the result that the necessary internal space can only be obtained by making the houses deep from front to back, or with projections at the back. These methods of construction interfere with the due access of light and air to the rooms, and in order to avoid these objections the frontages should not be unduly restricted. In the case of houses containing three bedrooms on the first floor it is desirable that the frontage should in no case be less than 16 ft.

Accommodation and Arrangement of Interior and Outbuildings.

Generally.—The house, as previously stated, should be designed to meet the reasonable needs of the prospective occupants, and the internal arrangements will, no doubt, be influenced to some extent by custom of the locality and by the habits of the population. Although the actual arrangement of the rooms may not lend itself to any great variety of planning, it is important that a sunny aspect should be selected for the living room. The dimensions of the rooms, and the arrangement of doors, windows, fireplaces, etc., need careful attention, and some suggestions in regard to these matters are made below.

Simple type of house.—The type of dwelling adapted to an average working class family should comprise a living room, three bedrooms, scullery, food store, and the necessary conveniences and out offices.

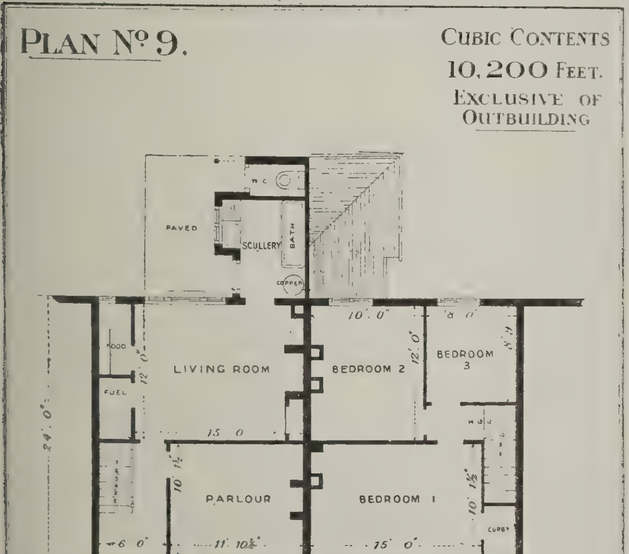
Living room.—The living room, being used by all the family in common, ought to be as large and commodious as possible, and should contain a good cupboard and dresser, and a kitchen range with a boiler for hot water supply.

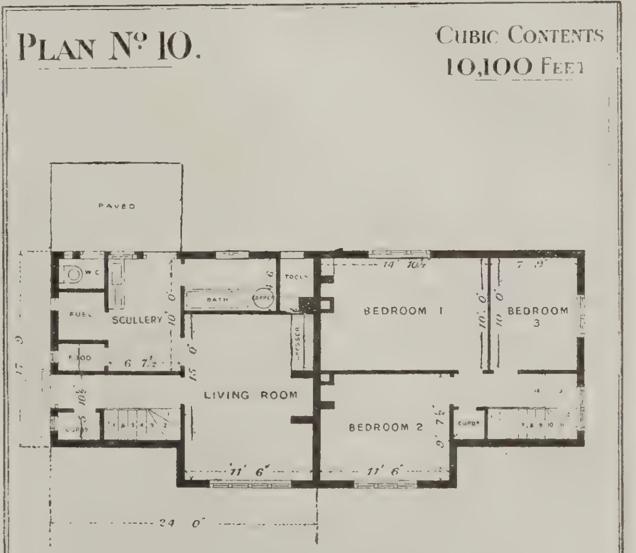
Bedrooms.—Bedrooms should be as large and airy as practicable. It is desirable that one of the rooms should have a floor area of at least 132 sq. ft. Bedrooms which cannot be provided with a fireplace should have special ventilation. This should be provided by means of fixed louvres over the door, and the door should be at the opposite end of the room from the window. The doors, windows, and fireplaces in the bedrooms should be arranged so as to secure convenient spaces for the bed and furniture and to ensure the freest circulation of air.

Scullery.—The scullery could be fitted with a gas stove, so that cooking may be done here in the summer, when the warmth of the fire is not needed in the living room.

The provision of a covered space outside the scullery, in which washing, etc., can be done, and in which the copper can if desired be placed, will be found a convenient arangement.

Bath.—It is best to place the bath on the ground floor. The installation of a bath on the upper floor is more expensive, and is





TYPES OF PLANS FOR WORKING-CLASS HOUSES APPROVED BY THE LOCAL GOVERNMENT BOARD.

apt to cramp the bedroom space. Where possible the bath should be so screened that it can be used without closing the approach to the scullery, yard, or stores. Where it is not possible to provide a bathroom a bath-scullery might be arranged. If in any case it is not proposed to provide a bath at the time of the erection of the house a "bath-space" should be planned so that a bath could be fixed at a later date without structural alterations to the building.

Hot water for the bath and sink can be supplied from a copper in the scullery, from a tank connected to a small boiler in the kitchen range, or from a copper heated by the kitchen range. Baths should be of vitreous enamelled iron and should not be encased.

Windows.—The window area of each room should, as a rule, not be less than one-tenth of the floor area of the room; windows should be made to open, and should be so placed as to ventilate the upper as well as the lower portions of the room, and for this purpose the opening should at the top be not more than 9 in. from the ceiling.

Height of Rooms.—The height of the rooms need not exceed 8 ft. 6 in., and 8 ft. will suffice with good ventilation.

Staircases.—It is desirable that the staircase should be so arranged as not to be entered directly from a living room or scullery. The staircase should be well lighted and ventilated, should be furnished with a handrail, and be of an easy ascent, with risers not exceeding 8 in.

Cellars.—Unless special circumstances necessitate their provision, it is not desirable that cellars should be provided.

Stores.—A store for food and one for fuel should be provided. A tool store will be found a useful adjunct to a house in a rural area. The food store should be well lighted and ventilated by a separate window opening into the external air, and, in order that it may be kept cool, should not be placed so as to adjoin any fireplace or chimney flue, and a sunless aspect is desirable. The size of these stores will depend mainly on the locality in which the house is built; in rural areas larger stores are generally required than in towns.

Closet accommodation.—Separate accommodation should be provided for each house, and the entrance to it should be placed outside the house. A water closet may be placed close to or built as part of the house, and access to the entrance should be under cover if possible. If an earth closet is provided it should be placed at some distance from the house unless the earth-closet is provided with a movable receptacle and so situate that it cannot be entered otherwise than from the outside of the house.

Yard.—It is desirable that there should be a paved area immediately adjoining the back of the house, and that this area should extend to the entrance to the closet.

Receptacle for house refuse.—It is desirable that the ashpit should not be fixed, but should take the form of a movable galvanised iron or enamelled iron ashbin, which should be required to be kept on a convenient portion of the paved area adjoining the back of the house.

Materials: Walls, Floors, Doors.

The materials of which the houses should be constructed will vary according to the locality. The use of local materials generally tends towards economy. Brickwork, covered externally with rough cast or cement, is an economical form of construction, though not of such lasting quality as plain faced brickwork. Half-brick internal walls which carry the floor joists should be built in cement. Walls of habitable rooms should be finished internally in plaster, but sculleries, larders, and outbuildings may be pointed and limewhitened.

Floors of living rooms and bedrooms should be constructed of wood, those of sculleries and outbuildings being of solid concrete finished in cement. The floors of living rooms can be constructed of deal boards either on joists or laid on concrete and nailed to fillets embedded in the co crete, but care must be taken that the co crete is absolutely dry before the boar are fixed. A layer of bituminous comp sition beneath the boards is desirable.

Strongly made ledged and braced do are preferable to panelled doors of infer quality.

Plans.

Annexed to this memorandum are pla designed to meet different requireme and situations.

Plan No. 1 is a design for a simple ty of house as described under "Accommod tion and Arrangement of Interior and O buildings." It is not advisable for house of this design to have a no aspect.

Plan No. 2 is of a similar characte Plan No. 1, but it provides for the off in the main building instead of in o buildings.

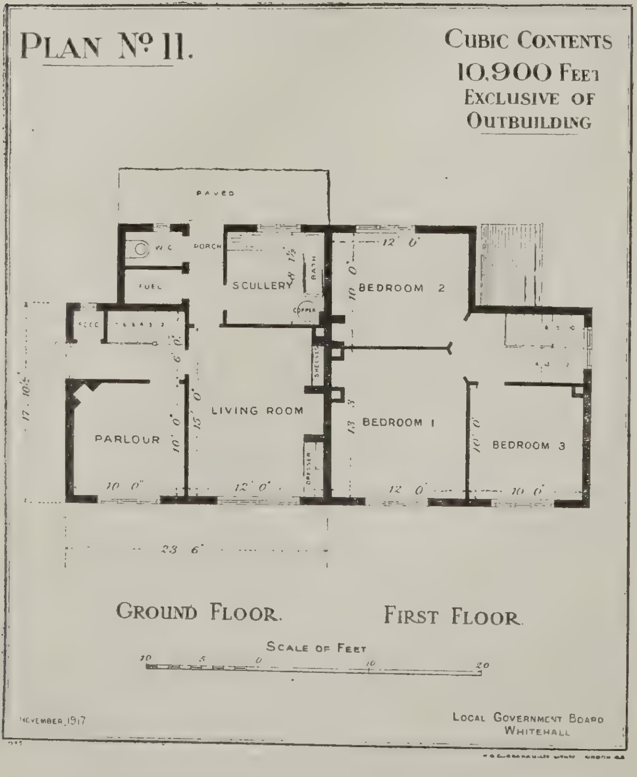
Plan No. 3 is a design for a house (wi somewhat similar accommodation to th provided by Plan No. 1) which secure sunny aspect for the living room when t exigencies of the site render it necessa to front the house towards the north.

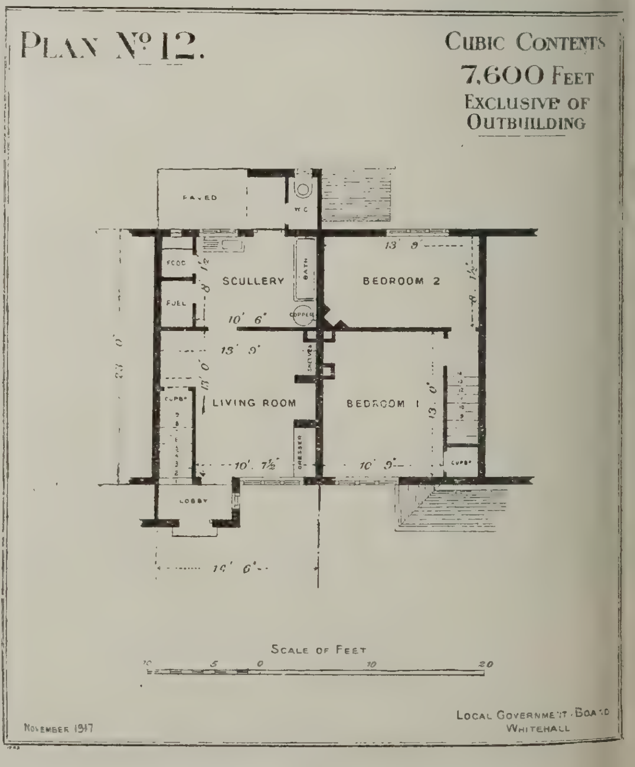
Plan No. 4 is a design for a house for narrower frontage than Plan No. 1, t third bedroom being provided by mean an attic in the roof. There is a proporti ately larger amount of bedroom space this house.

Plans Nos. 5, 6, 7, and 9 are desig showing various arrangements for hou containing a parlour in addition to a livi room. The provision of a parlour w necessarily add to the cost of the hou and, consequently, it should not be pr vided unless a sufficient rent is obtainab to justify it. It is desirable that the pr vision of a parlour should not lead to reduction of the size of the living room.

Plan No. 8 is an example of a type th has been adopted in rural districts for ag cultural labourers, etc. Its main recor mendation is economy of construction, th roof being utilised to its utmost capacity.

The roof can be constructed either as





TYPES OF PLANS FOR WORKING-CLASS HOUSES APPROVED BY THE LOCAL GOVERNMENT BOARD.

pitched roof or as a mansard which
d admit of the bedrooms being of
er larger area.

ans Nos. 10 and 11 are designs for
-detached cottages, No. 10 without a
our, and No. 11 with a parlour.

an No. 12 is a design for a type of
e containing only two bedrooms.

ese plans are intended to serve as a
upon which dwellings may be de-
ed to suit the particular circumstances
which they are required. They pur-
ly show only suggested arrangements
oms or other accommodation. The
t of suggesting official models of ele-
ns might be to stereotype designs to
extent, and the Board are desirous of
ling this. They think that the general
ns and elevations may best be left to
ecided by local custom or wishes. In
way it is hoped that there may be full
for variety and pleasing effect and
the dulness of uniformity may be
led.

e cubic contents of the twelve types
rated vary from 7,600 cubic ft. to
o cubic feet. The cubic contents are
lated on a measurement from the
m of the footings to half way up the
and for the purpose of the calculation
height of rooms is taken at 8 ft. as
n in the section on Plan. No. 1.

e approximate cost of each dwelling
be obtained by multiplying its cubic
nts by the current cost per foot cube
e locality in which the dwelling is to
ected.

NATIONAL FEDERATION'S
NNUAL GENERAL MEETING.

e annual general meeting of the
onal Federation of Building Trades
loyers of Great Britain and Ireland
held on Wednesday last at the Con-
ht Rooms, Great Queen Street,
lon, under the chairmanship of Mr.
es Storrs, the President.

The Annual Report.

e annual report, which was adopted,
d that the total number of affiliated
ciations was now upwards of 170, with
ggregate membership of about 6,500.
of the matters which had engaged the
tion of the Council during the year
been the question of the unequal dis-
tion of Government building work.
Federation had made repeated repre-
tions to the Government upon the
er and had been supported by the
onal Associated Building Trades
ncil, representing the operatives. They
pointed out that the present lack of
em was the cause of friction, waste,
ntent, excessive cost, and diminished
ut, and was, in effect, injurious to the
nal interest. Those representations
ared to have had some effect, for
tiations resulted, under the ægis of
National Service Department, which
for their object: (1) to set up an
oritative committee, representative of
loyers and operatives, to settle wages
conditions for building trade labour on
ks of national importance; (2) to pro-
a scheme for the better distribution
uilding trade works of national im-
ance so as to obtain the fullest possible
of the remaining resources in men and
erial.

e report of the Federation's repre-
atives on the Employers' Parlia-
tary Council was also submitted and
adopted with the annual report.

An Industrial Building Council.

The joint sub-committee appointed to work out the details for an Industrial Parliament scheme submitted a lengthy report, which contained a number of recommendations. In the first place they recommended that the name should be changed to Industrial Council (Building Trades Parliament) for the Building Industry, for the sake of uniformity of title with the other similar Councils set up under the Whitley Report. They recommended that the following bodies be admitted to membership: The National Federation of Building Trades Employers, the National Associated Building Trades Council or such other operative federation as may supersede it, the Institute of Builders, the National Association of Master House Painters and Decorators, the Institute of Plumbers, Ltd., the National Association of Master Plasterers, the National Federation of Slate Merchants, Slaters, and Tilers, the National Association of Master Heating and Domestic Engineers, the Electrical Contractors (Incorporated), the London Constructional Engineers' Association, the Glazed and Tile Manufacturers' Association, the Scottish National Federation of Building Trades Employers, and the following Scottish Operative Societies, viz., Masons, Painters, Slaters and Tilers, Plumbers, and Plasterers.

Regarding the Council, the sub-committee recommended that it should consist of 132 members, half to be operative and half employer representatives, such representatives to be elected by the respective organisations sending them. Other recommendations were that the meetings of the Council should be held in different industrial centres, and that in order to respond to a request by the Minister for Labour that the Council should be brought into being as soon as possible in view of the important questions his Department desired to bring before it, the respective organisations be asked to signify as soon as possible their approval of and readiness to carry out the provisions of the report, and that as soon as that was done an intimation be conveyed to the Department of the fact, and the date for the first meeting of the Council be fixed and announced.

In moving the adoption of the report the President said that whilst it was not exactly on all fours with the Whitley Report, it was acceptable to the Government. If they did not set up an Industrial Parliament on the lines there suggested, the Government would select its representatives. The Committee felt that the scheme they had formulated was far preferable, as it would give them the management of their own affairs.

Mr. S. Smethurst (Oldham) seconded the adoption of the report and it was agreed to.

Finance.

The Chairman proposed the adoption of the annual accounts.

Mr. A. J. Forsdike (Sheffield) seconded, and drew attention to the fact that the income of the Federation had failed to meet the expenditure by about £600. He hoped to see that condition of things altered, and if the Federation endorsed the action of the Council and appointed him treasurer he would consider it his duty to leave no stone unturned to attain that end.

On the question of the Belgian Fund, the Chairman explained that they had sufficient cash in hand to continue the grants down to the end of April, and if the arrears of subscriptions were paid up, and he had no doubt they would be, they would have enough to carry on to the end of the year.

The annual accounts were then formally adopted.

On a recommendation of the Council that the subscription for 1918 remain the same as at present,

Mr. S. Easten (Newcastle-on-Tyne) criticised the decision of the Council to meet the contemplated deficit for the present year out of reserve account.

The Chairman having explained the situation, the recommendation of the Council was agreed to.

Form of Contract.

The Contract Committee reported having submitted the draft new form of contract to the Council. At present the Committee consists of Messrs. Storrs, Willcock, Easten, Dove, Forsdike, Good, Woods, Tinker, Moss, Elvins, and Moffat, and it was recommended that they be reappointed with power to co-opt a representative from the Scottish Federation and the Institute of Builders to consider any amendments for revision of the draft, together with methods to be adopted to bring about its early and general introduction and use.

The report was agreed to on the motion of the President, seconded by Mr. Jessop.

Housing Accommodation.

The President formally proposed the adoption of the report of the Housing Committee.

The Secretary read the following resolution which had been passed by the Leicester Association on the subject: "This Association respectfully urges the Federation to impress upon the proper Government Department taking the question of the housing of the working classes in hand, the vital importance of the spending of national finance in that connection through the proper recognised building trade employers of labour under the supervision of local architects, and under no circumstances whatever to allow any corporation or other body to employ direct labour or to purchase materials direct, but to require them to place all works under contract under the regulations of the Government housing authority."

Mr. Watkin Williams proposed an amendment to refer the report back to the Committee with instructions that they should bring up such a report as would offer a solution of the problem based on economic and sound principles.

Mr. Foster seconded the amendment, and it was carried.

Mr. Costain suggested, on the amendment being put as a substantive motion, that they ought to accept the report and instruct the Committee to further consider the subject of a local income-tax.

Mr. F. T. Doleman (Nottingham) emphasised the importance of the building trade making up its mind as to the most practical methods of dealing with the housing question. There was, he said, a movement on foot to obtain priority in regard to the materials available after the war, so that public bodies could make use of them. If that came about what would be the position of the ordinary builder? Houses put up by municipal bodies cost about 25 per cent. more than those erected by private enterprise, and that was a point they should strongly emphasise.

After some discussion, on the suggestion of the President it was agreed to refer the report back to the Committee with power to co-opt for this particular purpose such outside members as it desired.

Allocation of Contracts and Wages Board.

The Secretary read the following resolution which had been received from the North-Western Federation: "That immediate steps be taken to arrange for a deputation to lay the case of the treatment of the organised building trade before the Prime Minister, and ask that immediate action be taken to carry out the various recommendations that have been put forward *re* allocation of building contracts and the formation of a Wages Board. That the National Federation is strenuously opposed to any further restriction of building and repair work until it is clearly assured that operatives not engaged on Government buildings and ship work are properly employed and that any subsequent steps may be taken only with the co-operation of the organised employers and operatives."

The Secretary further stated that at the meeting of the Council on the previous day they had passed a resolution expressing regret that a Wages Board had not been set up and urging the Government to have the matter dealt with without delay.

Mr. E. J. Brown remarked that the different Government Departments concerned with construction had simply played skittles with the building trade, and the larger the Departments the worse mess they made of the matter. The only true remedy for the trouble was the institution of a Wages Board, and such a Board ought to have been set up months ago. The building trade had got into a chaotic state, and they were all aware that a certain few people had obtained the bulk of the Government building work. Those men had gone into various districts offering high wages and had induced men to leave their existing employers. The question of contract conditions was now arising and the Admiralty was seeking to insert a clause to the effect that if wages were raised by reason of arbitration or so on, the contractor should receive no profit on such increased wages. In his opinion that was absolutely wrong, and he was glad to say that at present contractors refused to sign the contract. The question was such an important one that he had prepared the following draft of a letter which he thought it would be well for the Federation to forward to the Government: The members of the National Federation of Building Trade Employers of Great Britain and Ireland, assembled in general meeting this 30th day of January, 1918, have unanimously agreed to call the serious attention of His Majesty's Government to the chaotic condition relating to rates of wages and conditions of employment in the building industry throughout the whole country owing partly to the apparent lack of confidence on the part of the Government in the ability of the industry itself to manage its own affairs, but principally to the disastrous and utterly unnecessary outbidding of various Departments one against another for labour. The Federation begs to point out that at a meeting held under the auspices of the Minister of National Service on October 24 last a scheme for establishing a wages board, consisting of a representative of each section of industry from the operatives' societies and an equal number of employers, was approved by all the Government Departments concerned in building operations, each representative of those Departments expressing the willingness of his Department to abide by the decision of such board. Representatives to serve upon this Board were duly appointed, and a preliminary meeting was held on November 26, but nothing further has taken place in regard to the matter, to the very serious loss to the country and injury to the industry generally. The Federation wishes to emphasise the fact that such a board, if it had been at once established, would undoubtedly have been the means of preventing most, if not all, of the unrest which the varying decisions by Government arbitrations all over the country have caused, and begs to point out that should occasion arise when it became necessary to deal with other industries whose interests clashed with those of the building industry, the constitution of the board could be altered by the addition of members representing such allied interests, both employers and operatives. The hearty co-operation of operative societies having been obtained from the very first should, in the opinion of the Federation, have been sufficient guarantee that the best interests of the country would be served by the establishment of this board, and the Federation considers it is now entitled to be informed of the reasons for the delay in adopting the scheme which was unanimously accepted by all the Departments concerned so long ago as November 26 last."

After some discussion it was agreed, on the motion of the President, seconded by Mr. Mayers, that the letter as drafted be sent to the Government, and a deputation was chosen to deal with the question.

Mr. E. J. Hill suggested that immediate action should be taken in regard to the proposed clause in the Admiralty contract prohibiting the employer from obtaining any profit on advanced wages, and eventually the following resolution was agreed to: "That this Federation is informed that some invitations for tenders issued by Government Departments contain the following clause: 'In the event of any increase in rates of wages, as the result of arbitration or settlements by Government Departments under labour disputes, the contractor will not be entitled to any profit on such increase,' and resolves that its members be requested in all cases to decline to accept such a condition, and protests against such a condition being put forward by any Government Department."

Mr. H. Willcock (Wolverhampton) was elected as president for the ensuing year, and Mr. Storrs (the retiring President) was added to the list of Vice-Presidents, and other formal business was transacted.

The proceedings then terminated.

ROYAL ACADEMY EXHIBITION, 1918.

This year's Royal Academy Exhibition opens on May 6, and closes on August 10.

All works must be punctually sent there on one of the days fixed for their reception. These days this year will be: Water colours, pastels, miniatures, black and white drawings, engravings, and architectural drawings, Thursday, March 28; oil paintings, Saturday, March 30, and Tuesday, April 2; sculpture, Wednesday, April 3. No work will under any circumstances be received before or after these specified dates. All works must be delivered at the Burlington Gardens entrance. None will be received at Piccadilly entrance. Hours for the reception of works, 7 a.m. to 10 p.m.

All works sent from the country or from abroad must be consigned to an agent in London for delivery at the Academy, unpacked, on one of the appointed days. Account should be taken of the present difficulties of transit. No works in cases will be received; nor will the expenses of carriage be defrayed by the Academy. The attention of foreign artists and of English artists residing in the country and abroad is especially called to this regulation.

No photographing or copying of works will be permitted on the premises of the Royal Academy.

All the works sent by each artist must be entered on a printed form duly filled in with the name (Christian and surname in full, signed by the artist) and address of the artist, the titles and descriptions of the works as they are to be inserted in the catalogue, and the price if it is desired to place them on sale. These forms must be sent under cover addressed to "The Secretary." No advertisement, unnecessary quotation, or narrative can be admitted.

At the back of each frame must be written the name and address of the artist, with the title or description of the picture, and the number (if there be more than one) to which it refers in his or her list. This information must also be repeated with great distinctness and accuracy on a label securely attached by a string to the top of each frame, and made to hang over in front, as also to each piece of sculpture.

The forms and labels can be procured (during the month of March only) from the Academy. Applications for them made by letter must be accompanied by a stamped and addressed envelope for their enclosure.

No artist is allowed to send or exhibit more than three different works.

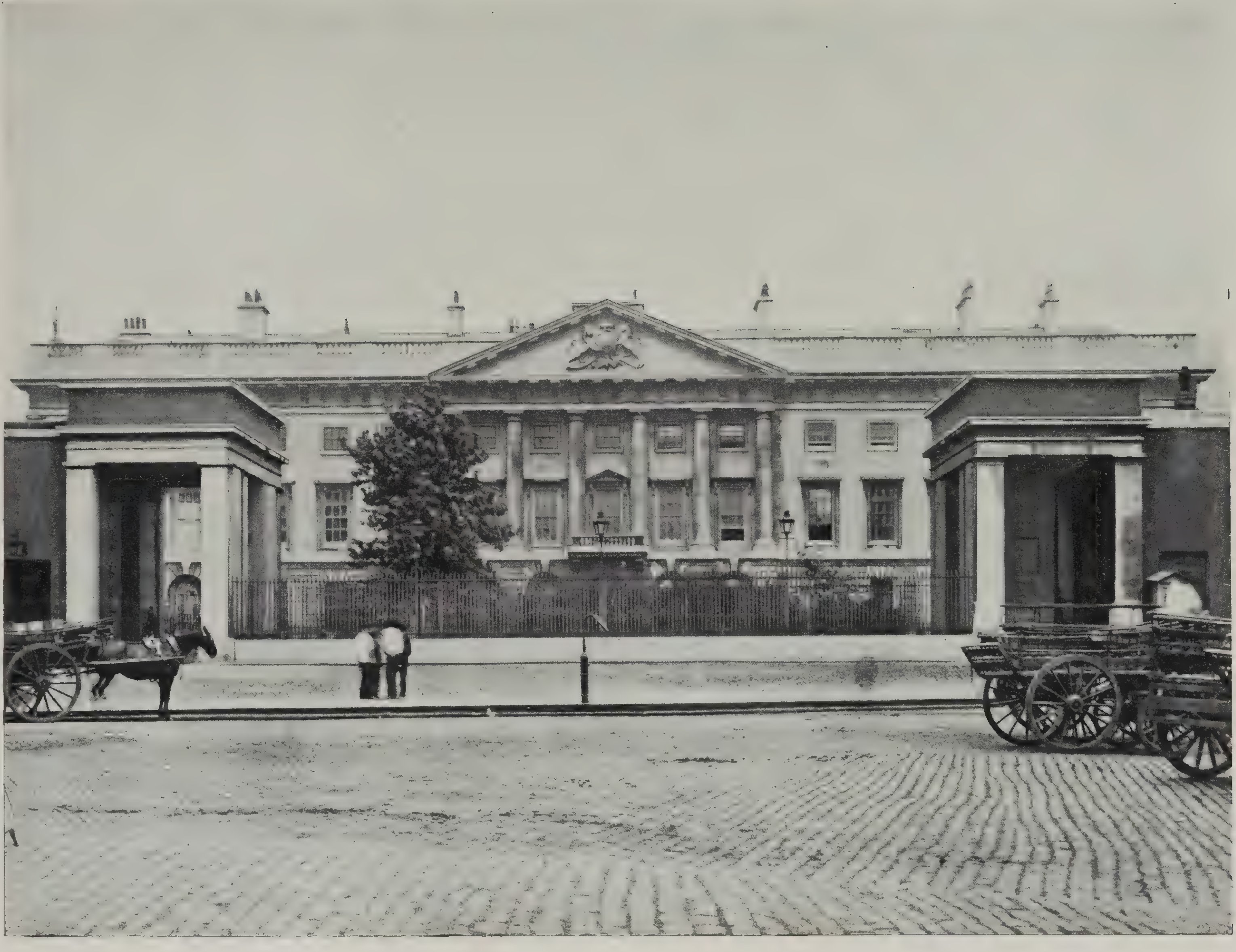
Each picture or drawing must be in a separate frame, or if a series of drawings from one story be at any time admitted in the same frame, they must be enumerated as distinct pieces. A case of sculptured gems will be considered as one work, provided the size of the case does not exceed six inches by five inches; and a case of medals or plaques, each of which is not more than seven inches in its widest dimensions, will be considered as one work, provided the size of the case does not exceed three feet by four feet. . . .

All pictures and drawings must be in gilt frames. Miniatures in frames set with jewels are inadmissible. Oil pictures must not be sent in under glass, but any oil picture not more than thirty square feet superficial measurement obtaining a place on the line may have a glass put over it if so desired on an appointed day before the opening of the Exhibition, of which due notice will be given. Excessive breadth in frames or margins, as well as projecting mouldings, may prevent pictures and drawings obtaining the situation they otherwise merit. The frames of engravings and of works in black and white must not exceed one inch in breadth. Oval frames should be avoided, as they are difficult of arrangement. Reliefs should be framed. . . .

Photographs in Architectural Room.

By a special regulation for the Summer Exhibition of 1918, photographs of architectural work will be admissible this year. The size of the photographs must be not less than 12 in. by 10 in.; they should be framed in slight wood frames, with or without mounts, which may be tinted. No frame and mount together to be more than 4 in. wide. Two photographs of the same building may be included in one frame.

Photographs of architectural sculpture will also be admitted under similar conditions.



MONUMENTAL ARCHITECTURE (SERIES II.). XXXVII.—THE MINT, TOWER HILL, LONDON.

J. JOHNSON AND SIR ROBERT SMIRKE, ARCHITECTS.

UNIVERSITY OF [illegible]
MAR 6 [illegible]

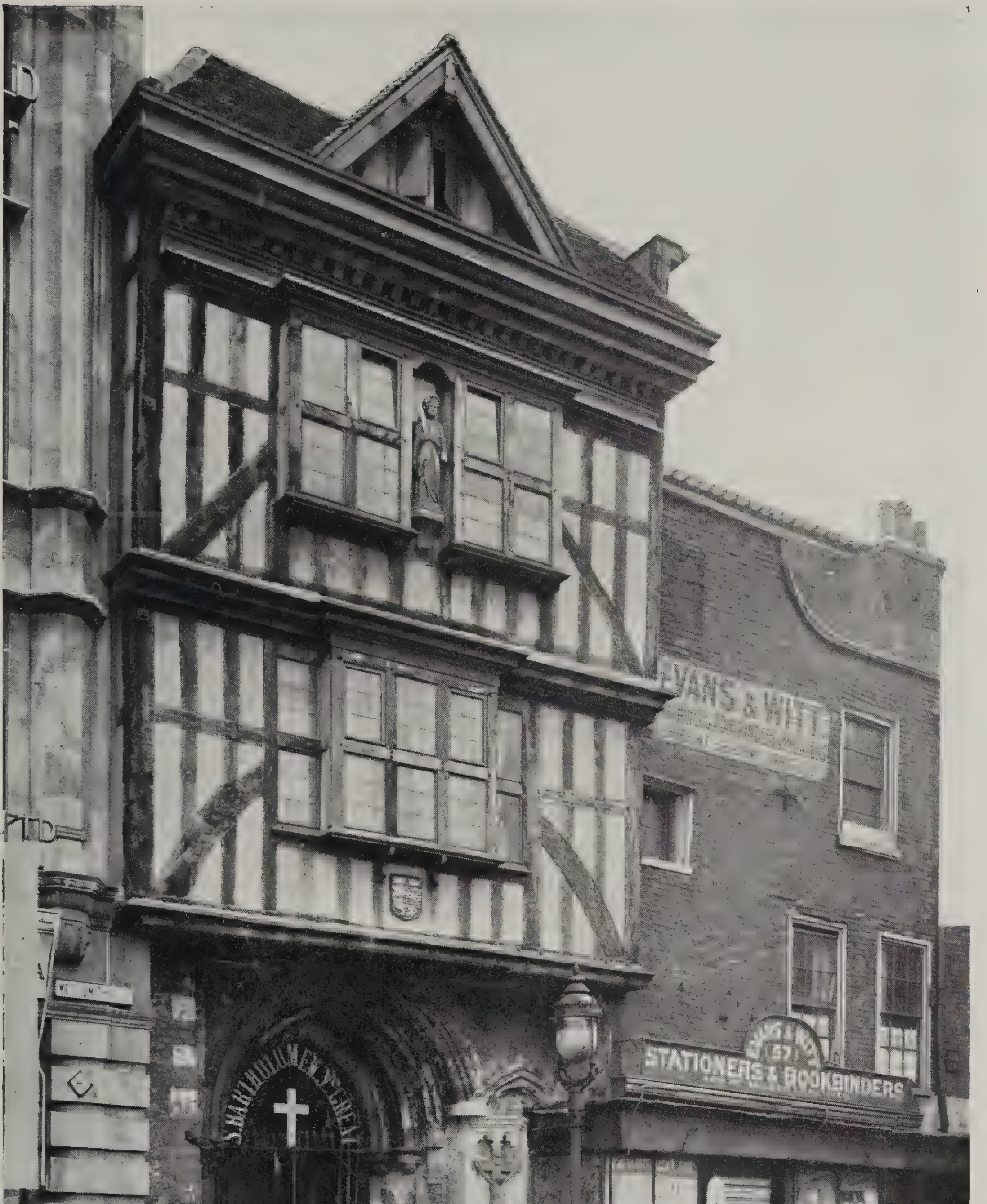


Photo : Bedford Lemere.

DETAILS OF CRAFTSMANSHIP (SERIES III.). VIII.—GATE ENTRANCE TO ST. BARTHOLOMEW THE GREAT, SMITHFIELD.

RESTORED BY SIR ASTON WEBB, C.B., R.A., F.R.I.B.A.

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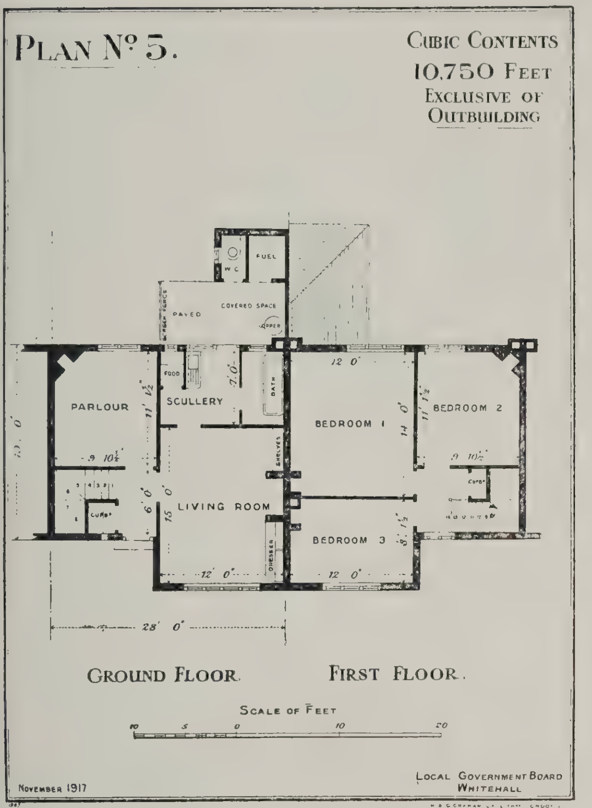
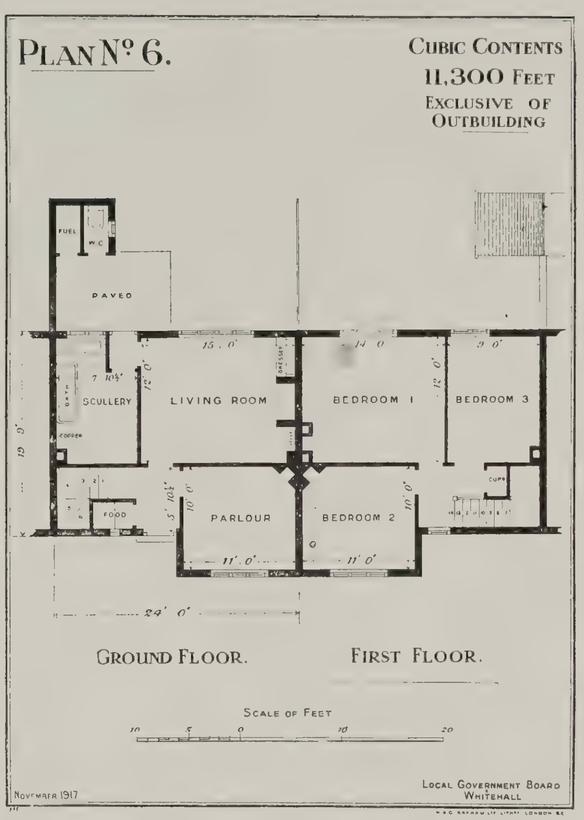
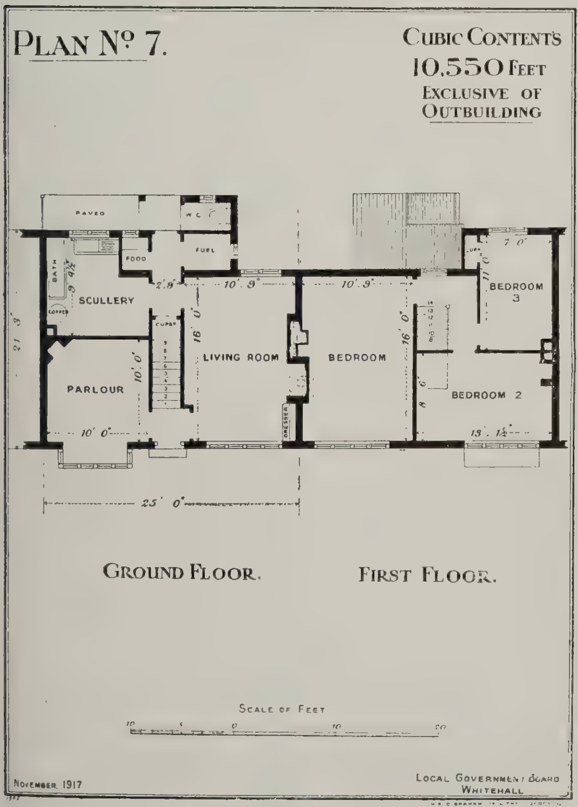
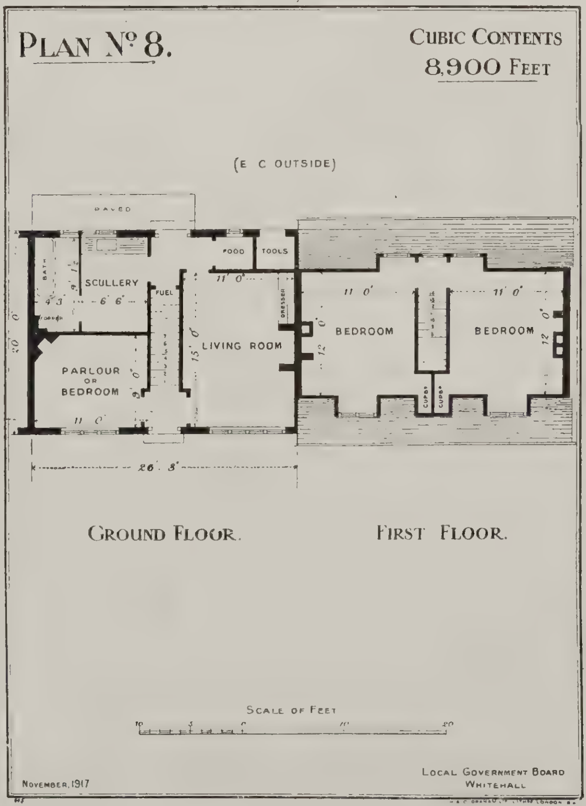
MAR 6 1918









CURRENT ARCHITECTURE (SERIES IV.). XLVIII.—HOUSES FOR THE WORKING CLASSES: APPROVED TYPES OF PLANS.

(See Government Memorandum published in this issue.)

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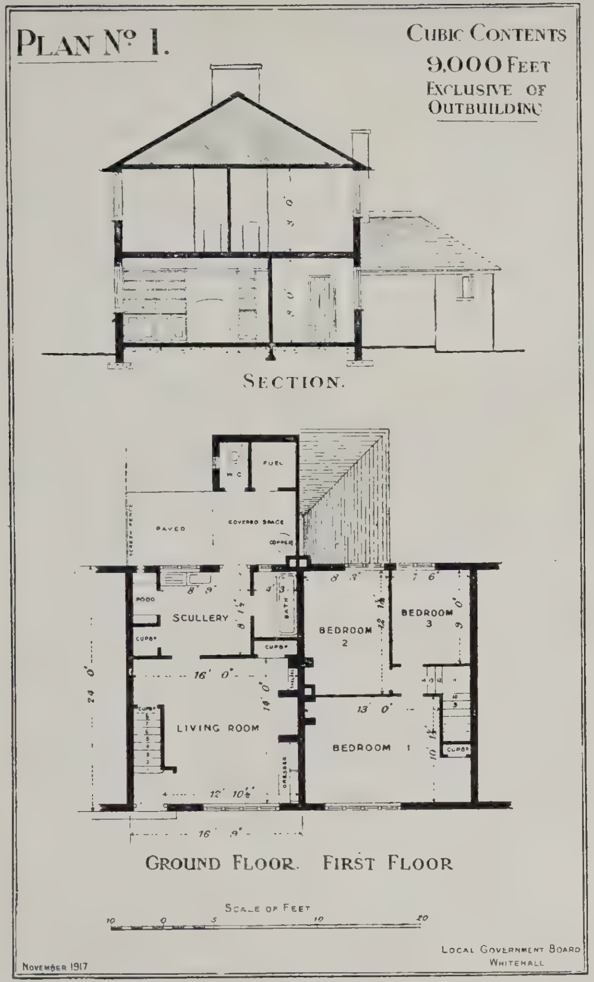

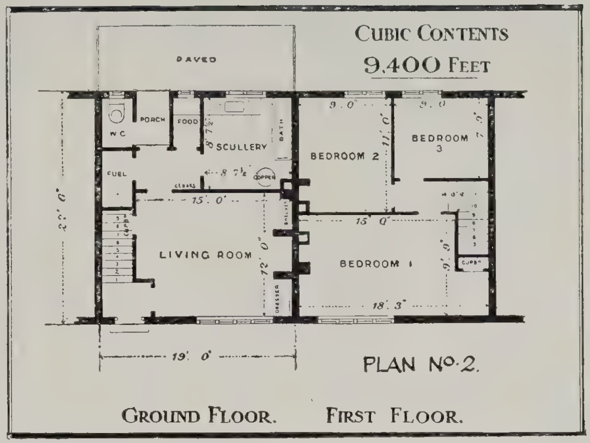

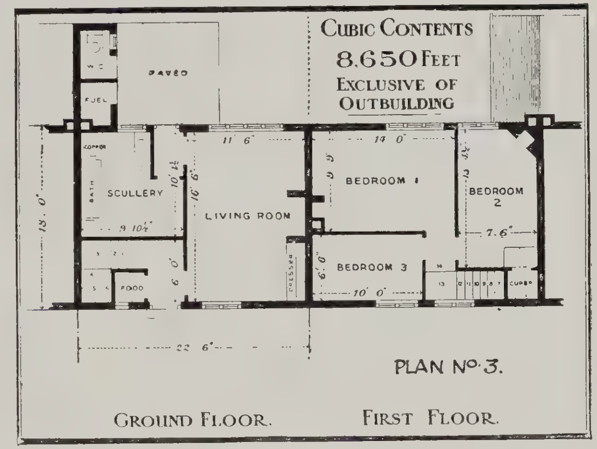

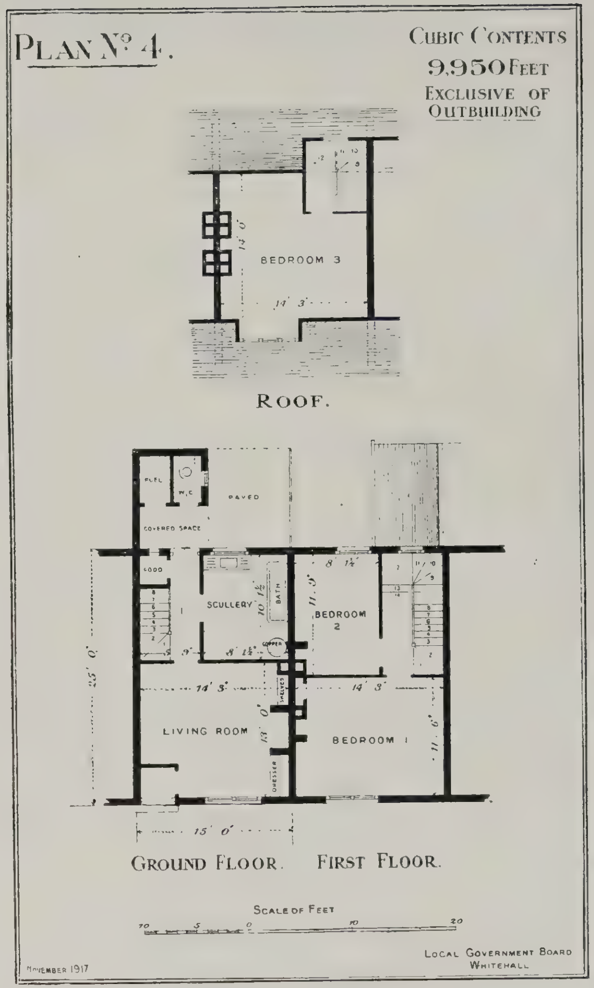

CURRENT ARCHITECTURE (SERIES IV.). XLVII.—HOUSES FOR THE WORKING CLASSES: APPROVED TYPES OF PLANS.

(See Government Memorandum published in this issue.)

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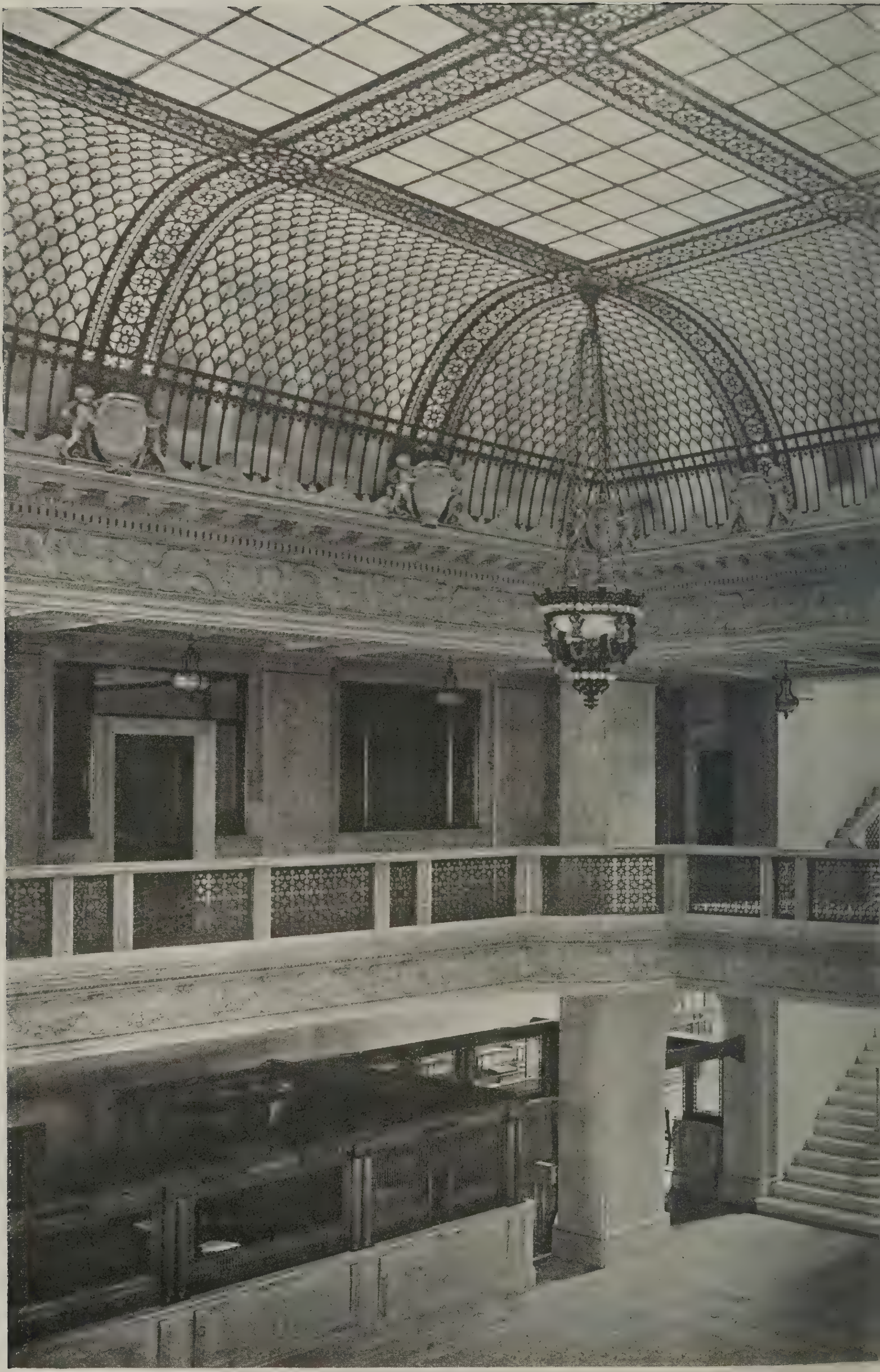
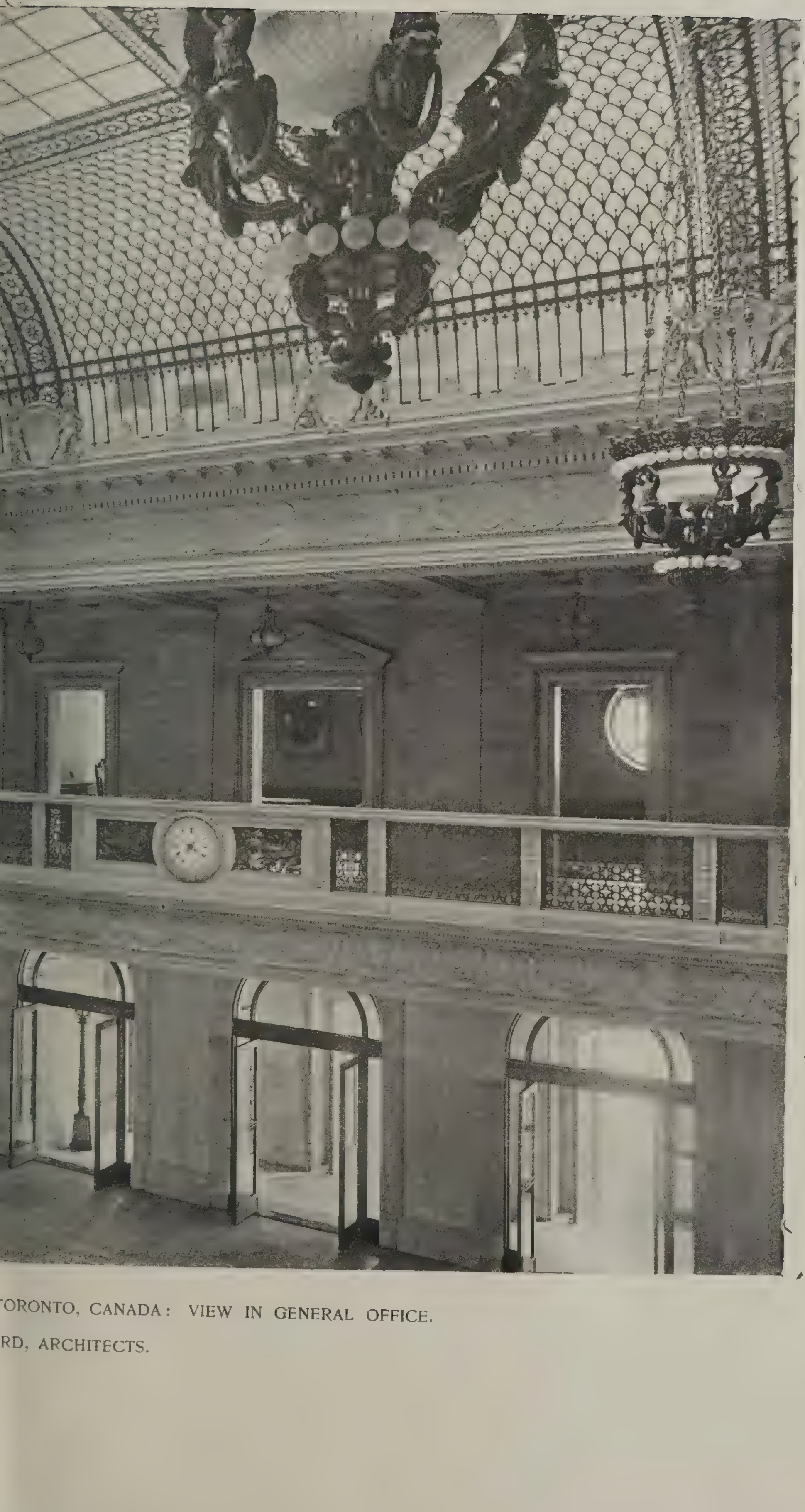


CURRENT ARCHITECTURE (SERIES IV.). XLVI — BA

CARRÈRE, HASTINGS



ORONTO, CANADA: VIEW IN GENERAL OFFICE.

RD, ARCHITECTS.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

FEBRUARY 13, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1206.

NATIONAL PAPER ECONOMY.

*Owing to the very necessary Government restric-
ns on paper supplies, all elements of waste must
rigorously excluded. Our readers, we are sure,
ll gladly assist in promoting this object, which is
item in national economy. They can co-operate
th us effectually in either of two ways—(1) By
acing a direct subscription for this Journal, or (2)
placing with a newsagent an order for its regular
livery. Casual purchases—now here, now there—
eate a serious discrepancy between supply and
mand, and cause wastage of effort and materials.*

UNITY of the Profession" seems to be fast
degenerating into a mere catch-phrase, void
of vital content, and yielding no value
eyond lip-service. Already one grows weary of it
ecause nothing comes of it. There is no dissent
om it, and consequently there is no opportunity
r the sharp contention that is commonly
condition precedent to a definite issue. If
is not to lose all its virtue and aroma, it
ould be put into cold storage until the happy
me arrives for a free fight—not about the principle
xpressed in the phrase, for on that we are unani-
ous, but about the hundred-and-one side issues
volved. Then we shall get a sort of academic
rmageddon, and, as some super-thoughtful person
as said, the struggle for unity may have the effect
further divisions, as it does among Scottish theo-
gians, who, striving for unity, split. Then the
lit splits; and even a "split splitted split" does
ot guarantee finality of disruption. When this
anger becomes imminent, all will be lost if we can-
ot bring out, in all its pristine splendour, that fine
othingly fraternal phrase, "Unity of the Profes-
on."

* * * *

What exactly is meant by "Unity of the Profes-
on"? It would seem that a plain answer to this
uestion is impossible. Wise men evade it by
eaking in parables, which please mightily even
ough they butter no parsnips. Men who are less
ise blurt out, "Registration," or "Absorption of
e Society by the Institute, or vice versa, or by
utual embrace, each hastening to meet the other
alf-way, and neither getting there first." It looks
vely on the tracing-cloth, but the trouble will begin
hen you try to materialise it in three dimensions.
lready the "Ancient Lights" boards are hung
ut; and the frontage line is by no means deter-
ined. Mr. Herbert Wigglesworth, F.R.I.B.A., in
s paper on "Unity of the Profession," read before
e Society of Architects, coquetted with Mr.
idney Webb's suggestion of an Advisory Council,
hich, with a little of the customary bad manage-
ent, may easily realise the Hibernian idea of
the bridge that divides us." With any luck, how-
ver, it may serve the more familiar function of
ridges, and secure unity—of sorts. Quite seriously,
owever, we will add that "unity of the profession" is
n excellent nucleus for the crystallisation of an idea
at is at present all-pervasive.

In publishing last week the new Local Government Board memorandum on housing, we welcomed this document as a valuable contribution to a subject which should be studied from every point of view. It must be admitted, however, that the issue of this memorandum at the present moment gives rise to some degree of perplexity. It comes too late to be of any use to participants in the R.I.B.A. competition—with which, indeed, it seems to clash rather than to co-operate. It is addressed to municipal authorities, who, one can well imagine, will be somewhat perplexed as to whether they would be well advised to follow this lead or to await the results of the national competition, which the L.G.B. memorandum seems to ignore, and even to prejudice to the extent to which its recommendations may happen to differ from those which may emerge from the competition. This untoward effect is not necessary, but is only too probable; local authorities being very prone to accept for finality an official manifesto which is doubtless intended to be suggestive only. They will feel, naturally enough, that what is good enough for the Local Government Board is good enough for them, and this obsession may stimulate the conservative instinct which is only too apt to oppose or reject "new-fangled notions." If the R.I.B.A. competition does not bring out new ideas in planning as well as in other particulars, it will fall far short of the intention with which it was instituted; and if the L.G.B. memorandum has the unfortunate, and most certainly undesigned, effect of discrediting innovations it will do more harm than good. On the whole, we cannot help wishing that the publication of this memorandum had been deferred until it could have been revised in the light of the R.I.B.A. competition results. Its issue at the present moment creates confusion, and, by its subtle, though probably gratuitous suggestion of divided counsels, rather tends to discount the competition, which, for the period of its duration, should have been left in undisturbed occupation of the field that one had supposed it designed to cover completely.

* * * *

It has been said that the Scot thrives in spite of oatmeal and the Shorter Catechism; and to these disadvantages might be added what must surely be the worst housing in the world. In the report by the Royal Commission on Housing in Scotland, many of the revelations of overcrowding are too painful for quotation. It is stated that while 47.9 of the population of Scotland live in houses of one and two rooms, the corresponding figure for England is only 7.1 per cent. Scottish houses, it is admitted, are well and substantially built, generally of stone, with 18-in. walls for cottages, and 2 ft. or even thicker for tenements. Thick walls, however, have their own disadvantages. In the older houses there is no damp-proof course, and the thicker the wall the more moisture it absorbs from the soil. It is in the West of Scotland coalfields that the worst houses are found. There the "single-end" cottage has frequently all the defects of the back-to-back house. "As a rule the only means of ventilation, lighting, and exit are in the front of the house, and the back wall is either unbroken or possesses a window too small for through ventilation. . . . The provision of sanitary appliances is often shamefully inadequate." This last sentence is not rhetorical, but must be taken quite literally, particulars of the inadequacy being absolutely nauseating and well-nigh incredible. As Sir George McCrae, D.S.O., Vice-President of the Local Government Board for Scotland, has said, "The Report of the Royal Commission on Housing is a soul-stirring manifesto," and he adds, "I would it were possible to circulate it in every home in the land, so that all might read the terrible and tragic story of present-day housing in Scotland." With the object of circulating the report as widely as possible, a summary of it has been prepared by Mr. Archibald Stalker, and issued in pamphlet form by Messrs. W. and R. Chambers, Ltd., of London and Edinburgh. Already the public conscience on this question had been thoroughly aroused, chiefly through the agency of housing pioneers from the South, who at the invitation of Scotsmen grown heart-sick of the squalid conditions, have conducted most successful missionary campaigns in the chief centres of population, and have been powerfully supported by the Scottish Press. Drastic reform is imminent, and may be pretty confidently expected to seal the doom of the block-dwelling of cities as well as of the but-and-ben hovel of the rural districts.

* * * *

It is estimated by the Commissioners on Scottish housing that there is an immediate need for about a hundred thousand workers' dwellings. That estimate, we imagine, would be doubled or trebled if it took into account, above and beyond the necessity for additional houses, the desirability of substituting decent dwellings for the very many that by no stretch of charity can be considered as coming under that designation. Scots, as we have already observed, are a hardy race in spite of their bad housing; but there are marked signs of degeneration that can be directly traced to this source, and the plague must be stayed at any cost. Luckily, the Scottish workers have become fully aware of the inferiority of their dwellings, and they may be trusted to get this great wrong righted in spite of the strenuous opposition of vested interests.

* * * *

Last week we lacked space to finish our note on the pitiful waste of man-power that arises from employing highly trained men on menial and unremunerative work that could be done by the unskilled or even by the mentally deficient. This is by no means a protest against individual hardship. Our concern is less for the men than for their country's service. We deplore the waste of energy and talent rather than the hardships of the victims, who, as a rule, dree their weird with cheerfulness. That the men thus wasted take to their degrading tasks unmurmuringly is nothing to the point; nor would our personal sympathy with them be a sufficient justification for protest. It is necessary to clean the windows and swill the lavatory, and the professional man's chief regret in performing such work is that many of his less expensively educated and less delicately nurtured comrades are far more competent to do it; while, in compensation, he sees men doing but indifferently well work for which he happens to possess special qualifications. Merely personal considerations, however, may be wholly dismissed. We have no need of them; our case having a firmer basis on the ground of national service. In the services there is perhaps a plethora of intelligence; and in the organising departments there may be a sort of congestion of it, temporarily paralysing function. We trust that the R.I.B.A. will persist in its efforts not merely to rescue skilled professional men from degrading drudgery —for that, as we have said, is by no means the chief object in view—but to procure them employment in which their training and ability can be used to infinitely greater advantage in our country's service. They will be made happier if they can be made more useful; and the dual object should be easily attainable.

THE PLATES.

Carved Screen from a Dutch Church.

THIS screen was erected in 1692 in the Luthe
church in Alkmaar, North Holland, whence it
removed in 1875. It is of oak, with br
fittings, and bears the arms of Laurentius Lan
minister, and Pieter Harboe and Jan de Roode, eld
The book-rest was presented by Margareta Hob
wife of Henricus van Born, minister of the church fr
1658 to 1662. The candlesticks bear a Jewish m
signifying "The Hague Congregation."

Decorations at Deysbrook by Alfred Stevens.

It was in 1847 that Alfred Stevens, then thirty ye
of age and still an obscure painter, secured, thro
the agency of Mr. L. W. Collmann, the commissio
execute a series of decorations in three rooms at De
brook, near Liverpool—a house built in the 'forties
the Blundell family. It has already been related
these pages how Stevens's dilatoriness was the des
of Mr. Collmann, who feared that the decorat
would not be completed to time. Stevens, howe
arrived at last with (in the words of Mr. Stannus)
carpet bag, a small portfolio of sketches, and a col
box, and executed them (the panels) in something
than one day each. They were sketched on the w
in red chalk, and thinly painted in Parris's medi
without models of any kind." The woodwork
border panels, cove, and ceiling are ivory-white;
large panels decorated with figures are yellow;
ground of the medallions is blue, that of the cei
panels black; the leading colours in the figure-pain
are red and blue. The illustration reproduced in
issue shows the decorative treatment over one of
doors. Immediately above the pediment is a figur
"Fame" on a sphere, and above her in a rounde
the cove of the ceiling is "Fortune" on her wheel.
panel on the ceiling demonstrates the fickleness of
tune: it is called "Mutability" and shows a qu
reduced to begging at the door of a temple. Prel
nary drawings for these paintings are preserved in
Victoria and Albert Museum and the Tate Gallery

Church House, Weaverham, Cheshire.

This building was erected in 1912 to provide a ce
for church work, the village schools no longer b
freely available. The main room, planned to be 7
long, had, for the sake of economy, to be reduce
48 ft. and this change has somewhat detracted fro
appearance. Rustic bricks were used for the
(specially made for the sloping buttresses, etc.).
the roof is covered with hand-made vegetating
A low-pressure heating system, with pipes
radiators with carefully arranged regulating valv
installed and, together with wall inlets and conce
extract roof ventilators, gives very satisfactory re
The floor of the main room is covered with m
boards on wood joists, the cloak-rooms having w
block floors, lavatories and kitchen being tiled. I
nally the walls are distempered buff colour, ceil
and friezes white; and all woodwork is stained
and varnished. The architect was Mr. Dougla
Leigh, A.R.I.B.A.

Doorway in the Library, Queen's College, Oxf

Queen's College Library was begun in 1692
finished in 1694. Forming the west side of the
quadrangle, it is 123 ft. long by 30 ft. wide, by
high. The library proper, situated on the upper
is notable for the florid character of its decoration.
is well shown in the doorway to the south end, a d
which is reproduced on the double-page plate in
issue.

HERE AND THERE.

T is indeed sad news that Albert Hodge has been
cut off at the moment when his fine powers
seemed ripening to fulness of fruition. Hope for
; future had run high, because he was so deeply inte-
sted in his work, so conscientious and self-sacrificing
it, so determined to put his heart and his soul into
He was, in short, a born artist, and would have
ne much farther towards the hill-crest if but another
trum of years had been vouchsafed him. Yet
hough he had reached neither the prime of his life
r the zenith of his talent, he was already one of the
lf-dozen sculptors whose names inevitably suggest
emselves as we seek to appraise the British School as
stands to-day.

* * * *

British sculptors—in which expression I take leave
include a few who, although born abroad, made
eir reputation in England—have been rather long-
ers. For examples I turn naturally to Mr. E. Beres-
d Chancellor's very entertaining volume on "The
ves of the British Sculptors," which is a rich trea-
y of facts and anecdotes. Nicholas Stone, who
de the twisted columns at St. Mary's, Oxford, and
s as much architect as sculptor (and some will have
that he was neither), died in 1647 at the age
61. His pocket-books at the Soane are a mine
information on the building conditions of his day.
bert Le Sœur, who did the fine statue of Charles
First at Charing Cross, was 55 (1650). Caius
briel Cibber, the Holstein Dane who made the
rible figures of Melancholy and Madness that
merly added terror to the gateway of Bedlam, died
1721 at 73. Francis Bird, who for no very clear
son is sometimes called the Father of English
lpture, put his best work into the statue of
vacking Busby, who had " birched the whole Bench
Bishops." Bird is better known, however, by his
door pieces, the Conversion of St. Paul in the pedi-
nt of the cathedral, and the monument to Queen
ne, which was renovated by Richard Belt in 1885.
d at his worst—no sculptor was more unequal—is
n in the Westminster Abbey statue of Sir
udesley Shovel, the tough old salt who had fought
way up from powder-monkey to admiral being
wn as a beperiwigged dandy languishing on a
vet cushion. Blame not Bird, but the super-
gance of his times. Rysbrack, of Antwerp, whom
nes Gibbs delighted to employ, and to whom we
a bust of Palladio and one of Inigo Jones, was 77.
eemakers, who like Rysbrack was a native of
twerp, and who made for Kent the insipid statue
Shakespeare in Westminster Abbey, and whose
t of Sir Hans Sloane is to be seen (in the intervals
eace) at the British Museum, reached the respect-
e age of 89.

* * * *

ouis Robillac (Englished Roubiliac) was 67 at his
th in 1762. Mr. Chancellor retells several anec-
es about him. One of them was a story that
ynolds delighted to repeat. Roubiliac, when first
came to England, was little more than an artisan
stonemason's yard. One day he picked up in the
eet a pocket-book stuffed with banknotes. He
ertised for the owner, who turned out to be Sir
ward Walpole, who rewarded his honesty by
uring him commissions, thus setting him on the road
fame—"and fortune" the tag ought to run, but
ubiliac seems to have died poor. How he contrived
get rid of all the money he earned would be a
stery if one were not aware of the lavishness of the
stic temperament. Generally speaking, artists are a generous tribe, with here and there a miserly exception—*e.g.*, Turner—and sculptors, in particular, are the most free-handed of men. There was Chantrey, for instance——. But I shall reach him in due course. Roubiliac is best known to the general public, I suppose, by his melodramatic death-and-dart monument to Lady Elizabeth Nightingale in the Abbey; but his statue of Shakespeare is almost equally familiar; and his Newton "at Trin. Coll., Camb., or, in words of proper spelling, Trinity College, Cambridge," has impressed many undergraduates with the belief that no man was ever half as wise as Roubiliac has made Newton look. One likes the Frenchman's fine enthusiasm for his craft as exemplified in the statement that at a social function he would gaze ecstatically at some lady and suddenly startle her with the exclamation, "Madam, I must have your hand!" or, "Madam, I must have your ear!" He did a bust of Isaac Ware the architect.

* * * *

Thomas Banks, who spent some years in Russia at the invitation of the Empress Catherine, died in 1805 at the age of 70. Joseph Nollekens, the stingiest and most grasping of scupltors, was working and exhibiting at the age of 79, and when in his eightieth year proposed marriage to the widow of Zoffany. She blighted his young affections. When he died he was nearly 86. John Bacon, that dull mechanical stone-cutter who made the heavy Romanesque effigy of Dr. Johnson in St. Paul's, did, in his early days, a good deal of work for Coade, the Lambeth purveyor of remarkable images in artificial stone. Bacon, on his death in 1799, was 59. Mrs. Damer, one of the greatest beauties of her time, lived to be 80, and was charming to her latest day. Flaxman lived until 1826, when he was 71. W. Theed, born in 1804, lived till 1891, which makes him, with 87, the top scorer but one in our list. Chantrey, dying in 1841 at the age of 60, had lived long enough to amass the very respectable fortune of £150,000. Gibson lived to be 76, Westmacott 81. Yes; on the whole, sculptors are a long-lived race, which makes Hodge's early death the more poignant.

* * * *

To what extent a sculptor is justified in his poetics is a question that has become acute in the controversy on the Lincoln statues. On the one side it is very ably argued that art is essentially "good manners," a refinement on nature, and that therefore Saint-Gaudens did well to tone down the native ruggedness of Abraham Lincoln, to present him as we would have him rather than as he was, to show him in his most exalted mood, radiant with all his own high qualities, heightened still further, where that is possible, by a genial glow reflected from the generously responsive and sympathetic temperament of the artist, who pays back with interest the pleasure derived from inward contemplation of his subject. Saint-Gaudens beautified everything that he touched. He was a subjective artist, and perhaps had a slight leaning towards excess in this fine gift, often imparting to character a sweetness that was not native to it. He did so, I venture to think, in that singularly and pathetically beautiful conception of R. L. Stevenson which he has recorded on the famous tablet in St. Giles's Cathedral in Edinburgh. It is fraught with a tender charm that, even while it reduces us to tears, one feels to be sympathetic artistry rather than detached and faithful portraiture; and Stevenson, like Lincoln, needed no exaggeration of his virtues. Perhaps Turner's retort applies. "Beautiful," said his client; "but I see nothing of this in nature." "Don't you wish you could, sir?" Saint-Gaudens more often makes us wish we could than that we couldn't.

* * * *

On the other side of the Lincoln controversy, it has been contended, and, I think, with less strain, that that with which the file-and-sandpaper theory is advocated—that the plain truth about Abraham Lincoln is noble enough—that no artistic conception of his character can be finer than the reality. I admit that the statue by Saint-Gaudens is an embodied benevolence, a thing to love on sight, but I doubt whether it is as faithful a likeness as that which Barnard has given us, and I marvel at the strongly expressed disapproval of it by Lincoln's son. Of course, I am not arguing that fidelity to feature is the sculptor's highest virtue. It is the artist's temperament that counts, even in portraiture. Usually it flatters the subject, as Saint-Gaudens generally did; but Mr. George Grey Barnard has, I gather, a certain austerity. He never flatters, nor seeks to please with mere prettiness. He is a worshipper of rugged strength, and, like Rodin, he sometimes leaves his statues half in the rough. Lincoln's virile force gave the artist a congenial subject, and, uncouth though the statue is in some of its details, the power of its appeal cannot be denied. It grips and convinces. It is masterly, and we shall be proud to have it and to honour it. Barnard has that greatest gift of the sculptor which has been expressed as "an intuitive sense of his material."

DIOGENES.

CORRESPONDENCE.

Housing After the War.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Architects throughout Europe are concerned with the planning of cottages. It is not an easy problem, because the working man will ultimately decide whether they meet his wishes. Most of us have known expensive houses which the working man has refused to occupy; therefore, the improvements and economies made must satisfy the artisan as well as the Government officials who will draw up the new by-laws which should come into force before long.

It is said that new methods will receive the attention of the authorities, but that diffidence exists as to the adoption of any innovation unless it has been well tested.

I have been experimenting for many months with cement blocks and with various renderings on them. I have proved that a ½-in. waterproofed cement facing to a porous concrete block is perfectly waterproof. I have also published a brochure giving the results of my experiments, and suggesting many uses of waterproofed cement for cottage building. It will probably be news to some of your readers that the British Government have erected several hundred houses with 2⅝-in. coke-breeze exterior curtain walls which are rendered with ¾ in. of Pudloed cement, that a flat roof can be made to span a width of 12 ft. 6 in. without the use of girders, and that bay-window roofs of concrete can be laid to a width of 3 ft. to 4 ft. without reinforcement.

At my London office, 71, Newman Street, Oxford Street, W.1, I have a practical demonstration of the various methods of waterproofing concrete blocks. There are shown a number of tanks made of porous coke-breeze concrete blocks, some with an ordinary cement facing and the others faced with Pudloed cement. The former tanks leak, whereas the latter are quite watertight. They can be seen in February during office hours by any interested person on production of visiting card.

These and many other suggestions are gone into
more fully in Circular No. 15 above referred to, ar
shall be glad to send it to any person who is interes
in the housing question.

J. H. KERNER-GREENWOO

Old Work in Relation to the Housing Questio

To the Editors of THE ARCHITECTS' AND BUILDE
JOURNAL.

SIRS,—I have just read with much enjoyment
interesting and timely article in this week's issue
"Old Work in Relation to the Housing Problem,"
feel that I would like to trespass a little on your t
by drawing attention to two points that occurre
me while reading it.

1. The inadequacy of windows.

Your correspondent refers approvingly to Fig. 1
rejoices in the small latticed windows set in such la
wall spaces. Does he realise how dark and ill-lit s
charmingly small windows must necessarily make
interiors of the houses they adorn?

In Figs. 3 and 4 the absence of all but one win
upstairs is most noticeable—surely it would h
served all purposes better to give more life-giving
germ-killing sunlight to the interiors of the houses

We know that true grandeur of design comes f
the building, and outward expression, of essenti
if we are to be satisfied in the future with cotta
lighted as those in the past have been, our design
inevitably weaken to mere copying of prettiness.

2. The ruling that 8 ft. is high enough for the nor
room.

I think that the ordinary public, who live in
houses discussed and built by your readers, woul
they were articulate unhesitatingly plump for at l
10 ft. as a minimum.

Most people attribute colds, headaches, and ir
bility to the oppressive feeling of living in low-ce
rooms. It is probable that this may be merely t
peramental—but it is there, and the stress of lif
the present and the future does not, and will not, les
this idea.

The promise held out that with the decrease in
height of the room comes greater floor space is lik
to prove fallacious—at any rate, in the case of s
small property as is built by private individuals
without the aid of the architect (which, perhaps, in
architectural journal rules my objection out, but wh
nevertheless forms an appreciable part of our to
and villages), and even where professional skill
employed, it will take a bold man to trample on
tradition which your correspondent is helping to fo

Let us think of the future—let us realise what
owe to those who will come after us, and create
atmosphere of good building and light and space t
will make the twentieth century lovingly regarde
the distant future and not stigmatised as mean
cheese-paring.

But I must thank you for the interest of the art
and the delightful illustrations you have provid
hoping that their charm is in spite, and not because
the tiny fenestration of the cottages illustrated.

Winchester, January 27, 1918. H. H. DEXTER

[With regard to our correspondent's first critici
it was expressly stated in the article in question t
the illustrations of small houses which accompanie
were selected at random and were shown "not
perfect specimens . . . but rather for the p
pose of drawing attention to the excellent (archit
tural) qualities of indigenous work." It was inten
not that they should be copied in every detail,
simply studied as meritorious examples of plain a
simple yet withal pleasant and homely building. W
regard to our correspondent's second point, he
aware that all the expert housing authorities (incl
ing the L.G.B.) consider 8 ft. or 8 ft. 6 in. a satisfact
height for rooms.—EDS. A. AND B. J.]

PREPARING FOR PEACE. III.—LABOUR UNREST.

BY C. H. B. QUENNELL, F.R.I.B.A.

this series of articles on matters of topical interest and their relation to the building trade, the first was devoted to the Education Bill and second to the necessity of increasing production. subject of this, the third, is of equal impor- ce, and is at the moment attracting the attention ll those who are interested in social reform and nstruction. If, as is generally admitted, we of us, not only the boy at the elementary school, d in need of a broader and more human type of cation, then the next consideration must be how are to produce wealth to remedy the damage of war. To do this we are immediately confronted the Labour problems, so that this the third cle would appear to be in its proper sequence.

is no exaggeration to say that this question shadows all others, and that a fair solution of it settle most of our troubles. If the working can go forward as a contented citizen, satis- with his life and its opportunities, we may ect to progress, and any alternative is unthink- . We cannot have the men who have fought battles in the trenches come back with any ing that they must fight their own by strike or -out. Such a state of affairs would be the nega- of all that is spiritual in our life; despair would in and anarchy and confusion result. We should e won the war to lose our soul, and it would not it us.

o write, then, on such a subject is an intellectual ertinence unless accompanied by some confes- of faith in justification. So far as the writer is cerned, he had special opportunities, as a boy, meeting workmen of the building trade and farm urers. Before being articled to an architect a r was spent at the bench and as a carpenter on building. Here one worked side by side with n; later on for a good many years there was k in connection with a wood working shop as an loyer. From 1896 seven years' social work put in at a boys' club in one of the poorest s of South London.

is perhaps this combination of experience which resulted in a tremendous belief in the dignity decency of labour—of the good tradesman, not operative. The building trade has not been ed of its interest to the same extent that many rs have by the worst phases of industrialism. A joiner, a first-rate bricklayer, or a mason who aster of his trade will be interesting individuals th knowing, real producers of wealth. Our old ding trade is a fine one, and we must safeguard raditions and maintain its prestige, and espe- y be on our guard that in all this anxiety to up with the times we so arrange matters that do our utmost to maintain our standard of es. The introduction of machinery should be in such a way that it saves donkey work, but leaves the workman interest in his job.

ow, if these facts were burnt into one's con- usness by actual acquaintance in the best type orkman the work at the boys' club was ren- d miserable by the fact that almost all the boys engaged in blind-alley occupations. Here d be seen youth under the heel of industrialism. bright little Cockney boys with a very nimble f their own and much the same traditions (when get to know them) as the public-school boy— nt at heart, prepared to play the game, and onding so readily to any feeling of comrade- —were being sucked into the machine with only the prospect of irregular employment as unskilled labourers in their early manhood. It was a sickening experience to watch them going down hill, and the damage was done by the fact that their work made no real demand on them and awakened little interest. As many as possible were put to good trades, and one example comes to mind of a boy who, by the kindness of a firm of contractors, became a good joiner, worked at science and art classes in the evening, and did so well that in the end he became an instructor of carpentry at a large public institution. But this was the exception—a line of Browning's comes to mind: "Here and here did England help me: how can I help England? say"—well, so far as these brats are concerned, our country did very little for them, and had much the better of the bargain.

So much then for the personal note of explanation, which is given only to justify the writer's conviction that at heart the working man is a thorough good sort, and next-of-kin to Thomas Atkins, and that, like the latter individual, he will respond readily to fair treatment and good leadership.

Now as to Labour unrest, which everybody knows to exist. A very wealthy man, who had made a large fortune in business, said to the writer a year or so ago, "If I were a working man I should be an Anarchist, not a Socialist," and by all the laws of logic it should be so. Leaving out the question of poor housing and grubby, miserable surroundings, with a general lack of the amenities, the whole trend of legislation of late years has been based on distrust of the working man. He must go in for compulsory insurance against bad health and unemployment, but we are allowed to look after ourselves; is card-indexed and numbered in an irritating, inhuman way. Then there is the perennially interesting subject of BEER. The decent workman wants the equivalent of the old country inn to act as a club, where he can meet his friends and have a glass, but the licensing laws, which are based on the assumption that he is a hopeless toper, insist on the miserable public-house drinking shop. Two workmen were overheard discussing the beer question the other day, and one said, "Yes, before the war they told you the [blighted] stuff was bad and rotted your inside because it was only made of hot water and chemicals; now they say you can't have it because it's all made of pure hops and malt, and good foodstuffs must not be poured down your blinking throat."

And so it goes on. We are always trying to save the workman's soul for him, instead of letting him do the job himself, and he is fed up with it. Labour is grown up, and it is we who are going to be dependent on how they do their jobs. Take the way the housing question is being tackled; it is all being worked from London as a centre. The L.G.B., Ministry of Reconstruction, Ministry of Munitions, R.I.B.A., even the Admiralty are busy planning, in London, houses for the workers, and the only people who are not to have a finger in the pie are the unfortunate future tenants. Most of us like to have something to say about the houses we are to live in, and it might have been so arranged in this case if the local authorities, with Labour members, had done the work; but now it will be a case of "Here you are—what is your family? Right, oh! Type X Y Z for you—in you go sharp and no nonsense about it." It is all so home-ey—this Prussianism.

This distrust has bred suspicion, and any study of the literature on the subject is more depressing. Capital and Labour, judged by their printed thoughts, are hopelessly material; it is all a question of a halfpenny an hour on or off. Always talk of money, never of value. In the old days the guilds of the crafts used to go round, and when they came across bad workmanship they smashed it up because it was of poor value; now, in an extended browsing on various memoranda and pamphlets, the writer cannot call to mind one which expresses the idea that, as it is necessary to increase our production, it might be as well to improve our standard of value and so increase wealth in this way. We still think about our poor old pound sterling that is only worth about ten shillings, and thus realise that to restore its face value it must recreate that value in commodities, not money, which is only the medium of exchange, and has no value in itself.

All this talk about conscription of capital is just so much twaddle, which would appear to be quite unnecessary, with the example before us of the value of the rouble when touched by the genius of Bolshevik finance. Some really bright M.P. will soon be suggesting that we print quite a lot of paper money and pay off the National Debt in one really major operation.

One of the most interesting documents lately published is the memorandum on the Industrial Situation after the War, published by the Garton Foundation, and another, the memorandum on Industrial Self-Government, by Malcolm Sparkes, has probably been read by all builders, because, as is generally known, Mr. Sparkes is a builder, and the suggestions contained in his book led up to the Whitley Committee, which recommended the setting up of Joint Industrial Councils. It is very satisfactory that the germ idea of this most useful piece of constructive work should have originated in the brain of a man who is a constructor himself. But it is very disappointing that apparently the R.I.B.A. has had nothing to do with it. Mr. Sparkes approached all the building Trades Unions and the Masters' Federations, and together they seem to have hammered out the scheme. The writer does not know if the R.I.B.A. gave evidence before the Whitley Committee, but it is again noticeable, in the report published in your issue of February 6 of the general meeting of the National Federation of Building Trades Employers, that their sub-committee, dealing with the suggested Industrial Building Council, does not appear to have had any communication with the R.I.B.A. The architects are being left out in the cold most abominably. Meanwhile Conduit Street fiddles away, and our house burns. We must go in for trades unionism, then we shall be consulted. The Joint Industrial Councils are not going to have it all their own way, and the Vigilance Committee on After War Problems of the National Guilds League have already published two pamphlets which can be taken as representing the extreme view. Quoting from No. 2, they say: (a) "That the Whitley Report aims at a 'permanent improvement in the relations between employers and workmen,' whereas our objects are the abolition of the wage system and the substitution for the capitalist control of industry of a democratic system of National Guilds working in conjunction with the State.

"(b) That the Whitley Report postulates a fundamental identity of interest between employers and employed, whereas we postulate a fundamental antagonism. The idea of 'joint control' of industry by employers and workmen follows logically from the 'Whitley' postulate, but no such 'joint control' is possible if our postulate is correct."

All of which goes to prove that the moderate men of all parties will have to come together and ensure the findings of the Whitley Committee having a fair trial; confidence must be restored; or omit, what Whitley Report aims at, a permanent "impr ment in the relations between employers and w men." And to this end architects, builders, men should have a Joint Standing Committee pared to take Parliamentary action.

The Garton Foundation's Memorandum tou on the monotony of modern employment as or the causes of unrest in that it lowers the dignit a man's calling; but it does not carry the idea enough. We in the building trade must be on guard against this loss of interest and value of work produced through over-systematising. war has been caused by industrialism gone r and the brutality of the German method is expla by the keener development of their comme system; the human factor remains the same, you cannot turn a man into a machine wit losing some of his finer attributes. For exan no employer would ask an employee to stand or head and jerk his left leg fourteen times in a min yet he will ask the same man to carry out mecha processes which do not call for any more brains, which lack some of the excitement of the balan feat. Fortunately our work remains interes but in many trades we are well along the Ger path of regarding men as machine fodder, ar will be found that unrest is more prevalent in trades where this is the case than where the ma left with the feeling that he remains a man. good workman can always produce articles of be value than the machine; we recognise this in we pay large prices for good old stuff because new is unsatisfying. At the moment there are schools of thought. One hopes to go back to old style of things, and the other says no—when use of machinery is properly understood and proceeds of industry fairly distributed, it will no necessary for a man to do more than watch automatic machine for two hours a day and other twenty-two will be his own. We should be very speedily confronted by the fact that would be producing the things of value in leisure which would be more desired and sale than the machine products, and so there woul another muddle. The safer plan is that of com mise and endeavour to keep machinery to donkey work and regard the retaining of a m interest in his occupation as of paramount im tance; it means a larger stream of energy in the duction of wealth. And we must all join forces architects' trades union must hobnob with thos the men and the masters; conferences must be l and we must be prepared to pull all together keep the wild men from tearing our house to pie

It is not a bit of good the architects saying are great artists who really cannot have anythin do with the working man, because, in point of they are not, and most of us are sorry journeyı turning out poor stuff which looks better in photo print than it does in reality. We have to down to realities.

[While Mr. Quennell's views are not necess ours, we cannot refrain from expressing pleasure at giving them publicity. We thir will be generally agreed that, in the n they represent the newer and more bro humanising spirit that will in the near fu dominate industry. They represent, at all events sincere convictions of one who has had excepti opportunities of getting at the heart of things, who has a singularly happy knack of recording experiences and impressions in a breezy style. Quennell, we are sure, will welcome criticism fror sides; and we need hardly say that our columns open for the free discussion of the momentous q tions raised or involved.—EDS. A. AND B. J.]

WAR·BVILDINGS·SECTION

THE SETTING OF CEMENTS AND PLASTERS.

T the eighty-sixth ordinary meeting of the Faraday Society, in the House ie Royal Society of Arts, John Street, phi, London, W.C., a general discus- . took place on "The Setting of ents and Plasters," a subject of which war interest is obvious. The discus- was presided over by Mr. James nburne, F.R.S., Past-President.

ie Chairman said that it had been the ition of the Faraday Society to initiate earch on this important subject. This, ever, was found to be impossible under circumstances, and the present general ission was therefore arranged, in the that it would focus attention on existgaps in our knowledge, and indicate ful lines of investigation, and so prethe ground for the proposed research.

e Mechanism of the Setting Process.

. C. H. Desch (University of Glas- opened the discussion with a paper The Mechanism of the Setting Pro- in Plaster and Cement." The set- of plaster, he writes, occurs in a ner which has been satisfactorily ex- ed by Le Chatelier, through the ation of a supersaturated solution and allisation of hydrated gypsum in rulitic groups of needles. The same ination may be applied to the setting luble salts, of magnesian and other ar cements, and of barium silicate. egard to the more complex Portland nt class, two rival views have been tained. On the one hand, Le Chate- holds that the basic silicates and inates which constitute the cement supersaturated solutions, and that roducts of hydrolysis then crystallise e same manner as plaster, whilst other stigators adopt the view of Michaelis, the products are of a colloidal charac- and that subsequent processes of allisation play little, if any, part in ibuting strength to the mass. The recent investigations, those of the Bureau of Standards in Washington, rm this explanation. When closely examined, it is seen that the difference between the rival hypotheses is partly verbal. It is admitted that the crystals which are formed when cement sets are exceedingly minute, even of ultramicroscopic dimensions, in which case the surface forces become comparable with those which determine the crystalline form. One may adopt the view of von Weimarn, that the passage from the crystalline to the colloidal state with diminishing size of particles is a continuous one. The size of the particles formed in the setting of cement is undoubtedly very small. The differences between the observations of different investigators may be attributed in part to experimental conditions.

Setting and Hardening.

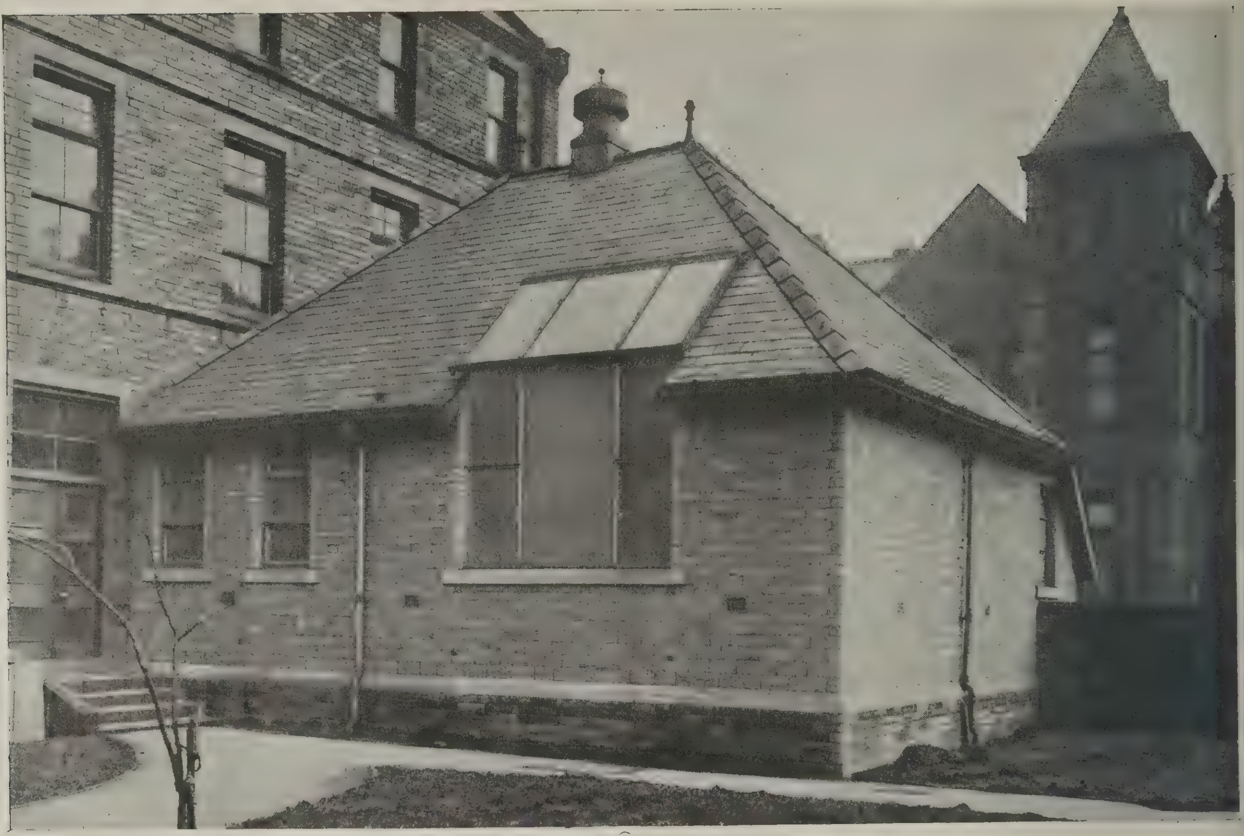
A paper by Mr. G. A. Rankin, of the Geophysical Laboratory, Washington, entitled "The Setting and Hardening of Portland Cement," was read by Dr. C. H. Desch. The paper records an experimental study of the hydration of the separate constituents of Portland cement clinker, namely, the minor constituents, lime and $5CaO \cdot 3Al_2O_3$, and the major constituents, tricalcic aluminate, dicalcic silicate, and tricalcic silicate. From this study it is seen that the initial set in Portland cement is probably due to the hydration of tricalcic aluminate; that the hardness and cohesive strength at first are due to the cementing action of the amorphous material produced by the aluminate and of tricalcic silicate; and that the gradual increase in strength is due to further hydration of these two compounds, together with the hydration of dicalcic silicate.

The value of Portland cement depends upon the fact that when finely powdered and mixed with water an amorphous gelatinous-like material is formed on the individual grains, cementing them together. This amorphous material results from the major constituents, tricalcic silicate, dicalcic silicate, and tricalcic aluminate. Of these constituents the compound tricalcic silicate, which makes up about 30 to 35 per cent. of an average normal Portland cement, is the one which hardens and develops the greatest strength within a reasonable time. This is due to the gelatinous hydrated silica which is readily released when this compound, in a finely powdered state, is mixed with water. The essential process for the manufacture of Portland cement is the formation of this compound. Unfortunately, the increase of the percentage of the tricalcic silicate does not appear economically possible at present. A more feasible plan of attack for improving cements would appear to be to release hydrous silica from some compound, such as dicalcic silicate, which contains a higher percentage of silica than tricalcic silicate, by the dissolving action of some suitable electrolyte. Investigation along these lines may result in the discovery of a cement which will enable us to prepare a concrete closely approaching the ideal; grains of sand cemented together with hydrous silicate.

The Colloidal Theory.

Mr. John Rhodin presented a "Note on the Colloidal Theory of Setting." He pointed out the similarity between the setting of cement and the behaviour of zeolites towards water. These minerals lose water by careful heating and become non-transparent, but the original transparent crystals are re-formed by simple immersion in water. The author had produced zeolite-like compounds by interaction between felspar, salt, and lime at 900 degrees C. and subsequent washing out of the soluble salts. These compounds, when heated with more lime, gave white cements, the setting of which could be watched under the microscope, when the formation of interlocked translucent crystals could be easily seen. He also pointed out curious cases of rapid decay of cements.

Several other important papers were read, and to these and the subsequent discussion on them we hope to refer in a future issue.



OPERATING THEATRE AT THE HEAVY WOOLLEN DISTRICT MILITARY BASE HOSPITAL, DEWSBURY.

WALTER HANSTOCK AND SON, ARCHITECTS.

A MODERN OPERATING THEATRE.

The operating theatre shown by the accompanying illustrations was erected by the Board of Guardians to the Dewsbury Union prior to the taking over of the buildings for the purpose of a military hospital. The theatre is placed in a central position in relation to the ground-floor and first-floor wards, and it is connected with the principal corridor.

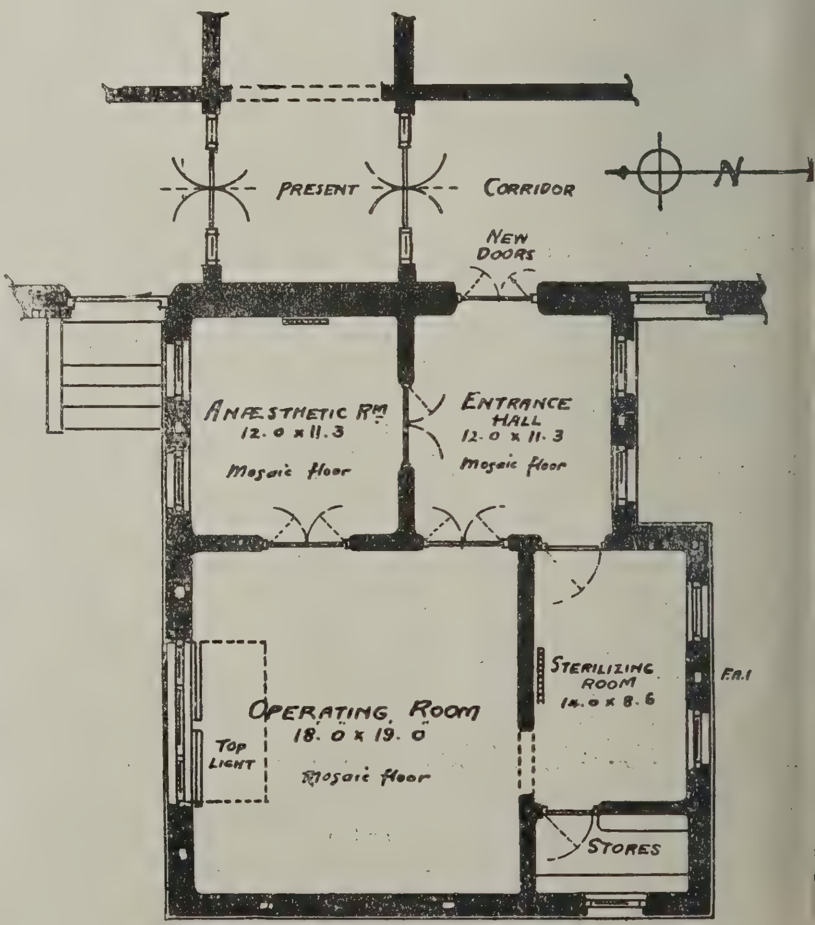
The accommodation includes an operating theatre 19 ft. by 18 ft. by 14 ft. high, anæsthetic room 12 ft. by 11 ft. 3 in., sterilising room 14 ft. by 8 ft. 6 in., stores 8 ft. 6 in. by 4 ft., and receiving lobby 12 ft. by 11 ft. 3 in. The plan is arranged so that cases can be treated and passed out direct through the hall.

The materials used in the construction are: Walls, stone and brick lining; roofs, timber with Westmorland slate cover; windows, metal and wood; the large one to the operating theatre is glazed with ground glass to give a soft and even light.

The internal doors are all of solid pine with flush faces. The walls and ceilings are in Parian cement, and all corners are finished with rounded angles.

The floors are in reinforced concrete, laid by the Bar and Concrete Engineering Co., Ltd., of London, and the floor surface is in mosaic. Curves, channels, and wall plinths are laid in the same material. The walls, ceiling, and woodwork are finished in white enamel. Heating is by steam through radiators.

The electric light fittings are made to special designs; they provide a clear, soft light, are easy to clean, and permit of considerable movement. The sanitary fittings, glass shelves, etc., were provided by Messrs. Shanks and Co. The fittings to



PLAN OF THEATRE.

theatre and other rooms are all of the t modern kind and are connected to the m service.

fan, fitted to the ceiling, clears the ns as required. Inlet ventilators are itted with filters to provide a clean air ply.

he theatre is now in use for military k, and is found to be of great use. The itects were Walter Hanstock and Son, Batley, who have just enlarged the base pital by 150 beds by the erection of e huts—two in brick and one in wood.

NEWS ITEMS.

Wharf, Haverton Hill, Tees-side.

t a recent meeting of the Tees Conser-cy Commission plans were approved the erection by the Newcastle-on-Tyne tric Supply Co., Ltd., of a wharf and p station on the foreshore at Haver-Hill.

itchener Memorial in St. Paul's.

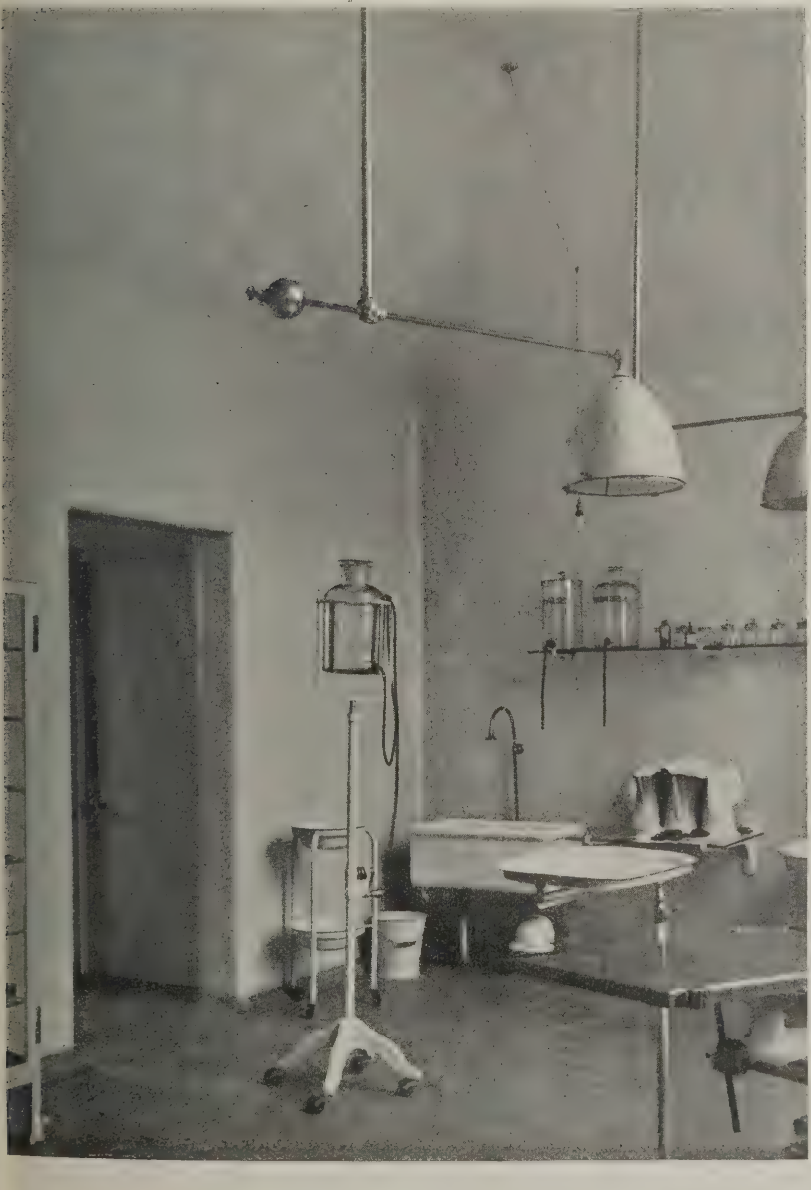
he Lord Mayor presided recently at the sion House over a meeting of the ncil of the Lord Kitchener Memorial d. After adding the Earl of Plymouth to its members, the Council received a report from the Committee appointed to deal with the proposal for a Kitchener Memorial Chapel in St. Paul's. The Committee stated that the Dean and Chapter had offered a fine site on the ground level of the Cathedral, and the Council accepted the offer with thanks.

Proposed Relaxation of Building By-laws in Glasgow.

The question of relaxing building by-laws in order to encourage the provision of houses for the working, labouring, and poorer classes was discussed at a recent meeting of Glasgow Corporation. It was decided, however, that before adopting the proposals of the committee dealing with the subject steps should be taken to ascertain the views of the Institute of Architects, the Institute of Measurers, and other bodies interested.

Postponement of R.I.B.A. Informal Conference.

We are asked to announce that several distinguished public men whom the Council of the R.I.B.A. had expected to take part in the conference fixed for to-day on "The Need for a National Policy of Town Improvement" find themselves unable to attend at the time arranged. Circumstances at the moment will not admit of the meeting being held at a more convenient hour, and the Council have felt obliged to defer the conference till more satisfactory arrangements can be made.



OPERATING THEATRE AT THE HEAVY WOOLLEN DISTRICT MILITARY BASE HOSPITAL, DEWSBURY WALTER HANSTOCK AND SON, ARCHITECTS.

The New Jerusalem.

Speaking at the Royal Institution recently Professor Flinders Petrie urged the necessity for rebuilding Jerusalem on lines entirely different from those that were followed at Athens and Rome. There must be no building on top of the ancient city. Suburbs should be laid out on either side about two miles from the centre of the city, with which they would be connected by electric trams. People should be prohibited from building in the old city, and the whole population would move to the suburbs in a generation or two.

A "Memorial" to Alderman Thompson.

At a recent meeting of Richmond Town Council much time was spent in discussing a motion moved by Councillor Filby that Manor Grove be renamed Thompson Grove, as a memorial to Alderman Thompson, who was a pioneer in the housing question. A letter written to a local newspaper suggesting that Thompson Grove be chosen, attracted the attention of Councillor Filby, who, thinking the suggestion an excellent one, brought it up before the Highways Committee, who, however, made no mention of the matter in their report. The proposed alteration, however, found favour with a majority of the councillors.

St. Olave's, Southwark.

A report of a committee which came recently before the London County Council stated with reference to the St. Olave's Southwark Church Bill, 1918, that "power is sought by the Bill, inter alia, to dissolve the ecclesiastical parish and to demolish the parish church. The church, designed by Henry Flitcroft, and completed in 1739, is a most interesting building, displaying quite definitely the typical characteristics of late English Renaissance architecture, as interpreted by the successors of Wren, and we think that efforts should be made to prevent its demolition." It is also pointed out that the destruction of the church would result in the disappearance (except in the corrupt form "Tooley") of the name of St. Olave from the district with which it has been connected since the time of the Norman Conquest; and the Council is invited to oppose the Bill in Parliament.

Honours for Member and Student of the Society of Architects.

Major T. Stewart Inglis, R.F.A., a member of the council of the Society of Architects, has been appointed a Companion of the Distinguished Service Order as a reward for distinguished service in the field. Major Inglis rose from gunner to sergeant in the Volunteers, and, on the formation of the Territorial Force, was given a commission in the Royal Field Artillery. Shortly after mobilisation he was appointed a brigade adjutant, and, after two periods of active service in France, in 1917, took out his own battery, which he had trained from recruits. Major Inglis has been gassed and twice wounded, and is now in a convalescent hospital in England.

Mr. T. Stanley Beach, a Student in the Society, and a lieutenant in the Royal Engineers, who was recently wounded, has been mentioned in Sir Douglas Haig's dispatch.

THE PLANNING OF PRINTING OFFICES.

In the course of a recent lecture at St. Bride's Institute on "The Organisation of a Newspaper Printing Office," Mr. Geo. Eaton Hart, of the St. Clements Press, outlined the principles that should be observed in the planning and equipment of a modern printing office. The equipment, he said, should be of a most substantial and up-to-date character—cabinet, dust-proof frames, with the patent iron brackets, which minimise the movement of the compositor's hand and give a galley rest under the lower case. Each rack to contain complete sets of body types and the cases to be kept in strictly numerical order. All cases should be of the dust-proof pattern, 6-ft. display case racks, and using for display caps. the new five-tier case and lower cases for the larger types. In the centre of the rack a strong tray rest sliding out as a case, but with a stop upon which to lodge a case when using it. Immediately above it, in each rack, the space case. Types should be ranged in complete series of founts, and so that those most used should be nearest to hand. Each of these racks should be labelled with name of the series and a distinguishing letter "Rack A, B, C," etc., while all cases should be numbered "A 1," "B 1," etc., at the *end* of the case, and the description of the type in the centre. Even the extraneous sort boxes should be individually labelled in *all* the cases, because every compositor is a law to himself when he distributes these very valuable sorts. More often they can easier be found in the quad box! A general synopsis of *all* founts should be posted up for the benefit of the stranger. Three or four commodious sloping randoms for making-up, with a strong iron rail in the centre from end to end, so that galleys may be stood up end on in making-up. Built up underneath would be galley racks, selections of which would be set aside for daily composition and labelled identically according to the system of slugging adopted. One section for first proofs, and another for revises, with abundance of accommodation for stock and standing matter and for emergency.

In this connection, for machine composition particularly, the flat dropping random is provided, wide enough to take two galleys end on, and in the centre from end to end a double iron rail galley rest for the use of the random man. This random, again, is built up on galley racks, whilst on the top rail referred to would be kept one or two small boxes for spacing material, and another for quoins. The imposing surfaces should be sufficient for the needs of the paper, and are usually so arranged as to permit formes as they are locked up to be slid direct into the foundry which is attached. Under the surfaces there should be accommodation for everything needed and stored close to hand for imposition and clearing away—furniture, column rules, headings, chases — indeed, everything needed in the operation of imposition and locking up. One or two surfaces on wheels should be kept in reserve to convey formes when necessary to the lift or foundry.

In a central position would be the head printer's rostrum, containing house, editorial, and national telephones, and near by the copy board, with direct and quick accommodation by a small electric lift to the sub-editorial room below. There should also be automatic carrier from the proof puller to the reader.

Having roughly described the main fittings, I would emphasise the desirability of everything being labelled and everything sized and varnished, and also that it be renewed as required. In this way your labels will remain clean and discernible for many years. It tends to cleanliness and orderliness, and I would venture further to urge for health's sake that your composing rooms each week are thoroughly cleaned and dusted, and the labelling wined down with a damp leather, and all left spick and span for the workmen's comfort on the beginning of a new week. The suggestion, too, is not altogether without considerable economic value. The adoption of the Saint Clements Dust Extractor would guarantee the elimination of dust from the cases.

I now come to the arrangement and organisation of the department, and here I can only speak generally, because the newspaper to be produced, the floor space available, and the shape of the room and contiguous departments must determine the plan to be adopted. An important principle to be ever kept in mind in planning is to give sufficient space for each fixture, or section, but with none to spare. One is tempted to be generous with abundance, but to alter fixtures or plant afterwards is costly and oftentimes impossible. The importance of the lay-out cannot be too much emphasised. It may mean the loss of hundreds or even thousands of pounds each year. The endeavour should be to save footsteps—motion—and to place the fixtures in such a way that a scientific sequence of movements will economically carry the work to a successful completion. I want to impress upon your minds the *principle* of the plan rather than any *particular* plan. In this regard I was always struck by the lay-out of the great reading-room of the British Museum as an *ideal*. As you know, in the centre of that large hall is a circular desk and store for the librarian and his staff, and running off all round at right angles are the desks and seats of the readers. Now, apply this plan to the newspaper composing room. The randoms and imposing surfaces form the centre to which compositors and operators are continually bringing their product, and where it is being dealt with. Around the outer circles of the enclosure are the Linotype, the compositors, the display department, and the readers. Now, what we have to plan is that the sequence of these important operations may be effected with a careful regard to efficiency and economy of motion. That is not take six steps when one will suffice, or li the hand eighteen inches when six is suf cient—in short, due attention should given to motion study.

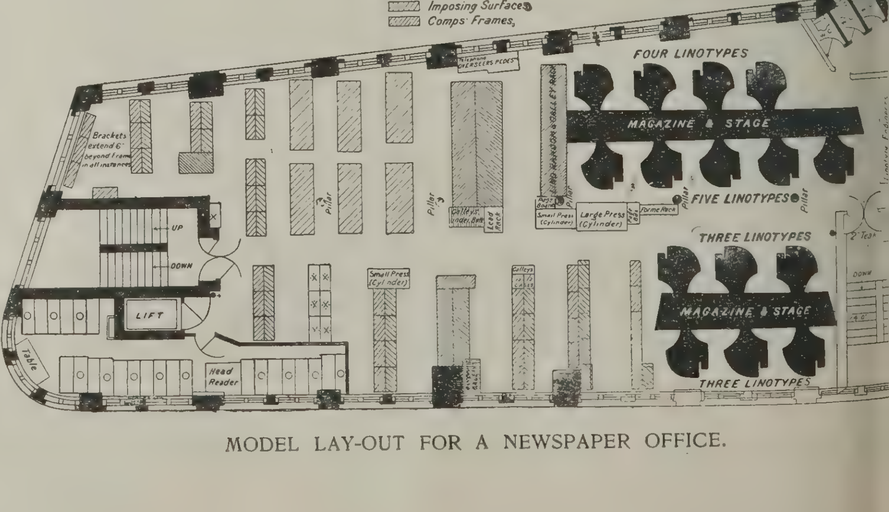
ARCHITECTS' WAR COMMITTE FUND.

The following is the first list of cont butors who have responded to the rece appeal of Mr. Ernest Newton (chairman the Architects' War Committee):

	£	s.	d.
Alexander, S. G.	2	0	0
Allen, Theophilus	1	1	0
Andrew, H.	1	1	0
Angell, R.	5	5	0
Ashbridge, Arthur	10	10	0
Ashley H. V. & Winton Newman	3	3	0
Axten, H. J.	1	1	0
Baker, Herbert..	5	5	0
Barry, F. Renton	1	0	0
Barry, W. E.......	5	5	0
Beare, Josias C..	1	0	0
Beaumont, J. W.	2	2	0
Beswick, Harry...	10	0	0
Birmingham Architectural Association, Council of	10	0	0
Brett, E. J.	1	1	0
Bridgen, C. H. E. per Mrs. Bridgen	0	10	6
Bridges, Oswald A.	0	10	6
Brierley, W. W....	5	0	0
Bridson, T. R. ...	5	0	0
Briggs, John	2	2	0
Brodie, C. H.	5	0	0
Burgess, Capt. C. S.	10	0	0
Burke, Edmund..	0	4	2
Burnett, A. S., per A. A. Burnett	3	3	0
Burns Dick, Captain R.	50	0	0
Cackett, J. T. ...	50	0	0
Carmichael, Lieut. D. A.	1	1	0
Caroe, W. D., M.A.	10	10	0
Charles, Miss B. A.	5	5	0
Charles, Miss E. M.	10	0	0
Clark, F.	1	0	0
Clifton, W. E. ...	3	3	0
Coleridge, J. & P.	1	1	0
Coles, Frank A...	2	2	0
Collins, M. E.	3	3	0
Collinson, G. F...	5	0	0
Cooper, T. Edwin	5	5	0
Cop, W. F.	0	5	0
Cotton, John	0	10	6
Cox, R. L.	5	5	0
Crompton, W. E. Vernon	1	1	0
Darke, FitzRoy H.	5	0	0
Davidge, W. R...	2	2	0
Dewes, Stanley...	2	2	0
Dewhurst, J. C....	1	1	0
Dixon, Arthur S.	5	0	0
Doe, Herbert W..	1	1	0
Dollar, Peter	2	2	0

	£
Douglas, Capt. H. A...............	2
Dunkerley, F. B.	21
Ekins, L. G.	1
Emerson, Sir William	
Ewing, James ..	
Favarger, H.	
Farquharson, H.,	
Fleming, H. S. .	1
Ford, Son & Burrows	2
Foreign Architectural Book Society (per Mr. E. Guy Dawber)	10
Forster, F. J. ...	3
Fox, Sir Francis.	2
Franklin, D. M....	2
Fraser, Percival M.	5
Gass, John B. ...	10
George, Sir Ernest, R.A.....	3
Goodsir, J. P. ...	1
Gover, A. S.	2
Grant, W. Leonard	2
Grayson, Hastwell & Leonard Barnish	10
Grazebrook, T....	2
Green, Mowbray A.	0
Green, Walter G.	1
Greene, Capt. W. Howe	1
Greenleaves, E....	0
Harper, Ewen	1
Hartree, Lieut. J.	4
Hatcher, G. W...	1
Holman, A. R....	1
Hooper, Francis..	5
Hope, A. J.	5
Hunter, James K.	1
Hutchings, J. . .	2
Innocent, C. J...	1
Jackson, Martin T. E.	1
James, James W.	2
Jemmett, A. R..	0
Jones, Francis .	0
Jones, W. Campbell	21
Kenchington, 2nd Lieut. H.........	1
King, Vivian H..	0
Knowles, Messrs. Oliver & Leeson	3
Laing, H. G. Malcolm	1
Langham, C. S., per Mrs. Langham	0
Legge, H. A.	1
Lethbridge, George	2

(*Continued on p.* xiii.)



MODEL LAY-OUT FOR A NEWSPAPER OFFICE.

(*Continued from p. 74.*)

	£	s.	d.
verhulme, the ord	100	0	0
vis, H. G. G., er Mrs. Lewis	0	5	0
nsdale, H. alter	3	3	0
llwraith, John .	1	1	0
ackenzie, . G. R.	1	1	0
ckenzie, A. arshall	1	1	0
rtyn, E. A. L.	1	1	0
es, G. S.	1	1	0
ler, James	5	5	0
ner, the Visount	10	0	0
rris, James A.	1	1	0
rris, Percy	3	3	0
nford, Wm.	1	1	0
rray, John	5	5	0
ll, Archibald	2	2	0
bet, N. C. H.	0	10	6
ton, Ernest, .R.A.	5	5	0
n, Segar	25	0	0
e, C. L., per eonard J. Pace	2	0	0
ne, G. H.	1	1	0
mer, C. T.	0	10	6
ry, S. Gambier	2	2	0
erson, Alex.N.	2	2	0
erson, J. Wiln	1	1	0
kins, Henry	1	1	0
, S. Perkins	5	0	0
ott, Capt. R. ., R.E.	1	10	0
tal, Sir Wilam, Bart.	1	1	0
ter, Frank J.	1	1	0
e, F. G.	0	9	0
r, Professor . S.	1	1	0
fern, Harry	3	3	0
lly, Professor . H.	2	2	0
erts, A.	1	1	0
fe, W. B.	0	10	6
hworth, W.	2	2	0
mell, Geo.	5	0	0
rer & Gamble, essrs.	2	2	0
tt, W. Gilbee	2	2	0
tt, Mrs. Walr (In Memory the late alter Scott).	5	5	0
epheard & ower, Messrs.	2	2	0
, Francis	1	1	0
Simpson, Captain C. H., R.F.C.	2	2	0
Simpson, F. M.	2	2	0
Sirr, Harry	1	1	0
Smith, J. Osborne	2	2	0
Smith, M. Maberley, B.A.	2	2	0
Smee, Frank E.	1	1	0
Snell, A. Saxon	5	0	0
Solomon J. Solomon, R.A.	1	1	0
Solomon & Son, Messrs. Lewis	5	5	0
South Wales Institute of Architects	5	5	0
Street, A. E.	3	3	0
Street, Edward	2	2	0
Sulley, Henry	3	0	0
Sulley, Mrs. Henry	2	0	0
Surman, J. B. & W. T. Benslyn	2	2	0
Sykes, A.	5	5	0
Tait, C. J.	5	0	0
Thomas, A. H.	0	10	6
Thomas, Major Sir A. Brumwell	10	10	0
Timbs, R. F.	1	1	0
Todd, H. E.	2	2	0
Towend. T.	5	0	0
Town, W. H.	2	2	0
Triggs, H. Inigo	1	1	0
Tromp, F. N.	3	3	0
Tugwell, Sydney	3	3	0
Tullock. F. H.	2	2	0
Type, Marcus O.	1	1	0
Vickery, Geo. & T. S.	5	5	0
Walton, George	5	0	0
Warren, Edward	5	0	0
Waterhouse, Paul, M.A.	1	1	0
Waterhouse, P. L. M.A.	1	1	0
Watson, A. F.	3	3	0
Wells, Douglas	1	1	0
Whinney, Thos. B.	10	10	0
Whitehead. Alfred	1	1	0
Wigram, E. T. A.	5	0	0
Wiles, J. G.	1	1	0
Willink & Thicknesse, Messrs.	20	0	0
Yeates, Alfred B.	2	2	0
Yerbury, John E.	2	2	0
York & East Yorkshire Architectural Society per A. B. Burleigh)	15	5	0
Young, James & Co., Messrs.	2	2	0
Young, W. Cecil	1	1	0

HEORY OF CEMENT-SETTING.

rofessor Henry Le Chatelier (Paris)
t to the meeting of the Faraday Society
orted on p. 71 a paper on "Crystalloids
inst Colloids in the Theory of
ments." The author considers the
ory which attributes the harden-
of cements to certain colloidal
perties of the material to be devoid of
se, for a colloid is taken to mean a body
able of hardening, and thus the theory
merely a definition. All very minute
oluble bodies give colloidal suspensions.
e absorptive power of these bodies is
y a particular case of much more
eral properties. Only insoluble bodies
preserve an extreme state of sub-divi-
n, hence colloids never show any dis-
nible crystalline form.

n plaster, crystals may not be visible,
that is only due to their extreme
nuteness. When the humid hydrated
ster is left to itself, crystals become dis-
nible in time. Similar considerations
ly to the calcium aluminates. In the
dening of Portland cement calcium
cate is the essential element; by
alogy with barium silicate, hydrated
cium silicate may be said to crystallise,
in minute crystals, initiallv of colloidal
nensions, but in course of time they
w. As the mechanical resistance does
diminish with time, the colloidal state
nothin~ to do with the hardening, the
lanation of which is the progressive
crystallisation of hydrated compounds of cements from a supersaturated solution, produced by the greater solubility of the anhydrous compounds. The crystals produced from such solutions are in the form of elongated needles, and the entanglement and close adhesion of these causes the solidity of the mass.

LEGAL.

New County Offices, Trowbridge.

Hayward and Wooster v. The Wilts County Council.

Messrs. Hayward and Wooster, builders and contractors, of Bath, were employed by the Wilts County Council under a contract dated May 27, 1913, to build and erect new County Offices at Trowbridge. The amount of the contract price was £10,979, but during the progress of the work a considerable amount of alterations were made in the plans and certain extras were incurred in consequence, and for these extras Messrs. Hayward and Wooster made a claim upon the County Council. The contractors applied for an abitrator, and Mr. Alan E. Munby, M.A., F.R.I.B.A., of London, was appointed. The arbitration occupied many months, and frequent hearings took place before the arbitrator at Trowbridge and in London.

While the arbitration was proceeding the County Council applied for a special case, and the points of law involved went before the Court of Appeal for decision.

A very important point arose as to the position of sub-contractors, and a decision of great interest to the building trade was given by Lord Reading. It was decided that although the County Council had selected Messrs. Dawnay and Sons, Ltd., for the ironwork, and had received their tender and had approved it, and although Messrs. Hayward and Wooster, in accordance with the contract, had accepted the tender, nevertheless, Messrs. Dawnay and Sons, Ltd., were the sub-contractors of Messrs. Hayward and Wooster, and the County Council were not in any way responsible for the delivery of the ironwork. The Court of Appeal decided that they were bound by the decision in the House of Lords in the very recent case of "Hampton v. The Glamorgan County Council," which over-ruled previous decisions which had decided that in cases such as this the sub-contractors were employed by the building owner.

The arbitrator gave his award recently and directed that the Wilts County Council:

1. Should forthwith pay to the contractors the sum of £2,742 10s. 8d.

2. That the costs of and incidental to the award, including the costs of the quantity surveyor, and legal charges incurred by the arbitrator, and the arbitrator's own charges, amounting to £316, should be paid by the Wilts County Council.

3. That the County Council should pay their own costs, and one-half of the costs, charges and expenses incurred by the contractors, as between solicitor and client.

Mr. W. F. Long (of Messrs. Titley, Long, and Lavington, solicitors, Bath) represented Messrs. Hayward and Wooster, and counsel instructed by the Clerk of the Council appeared for the Wilts County Council.

PROFESSOR BERESFORD PITE ON TOWN PLANNING AND CIVIC ARCHITECTURE.

Professor Beresford Pite is giving, under the auspices of the Manchester School of Architecture, a series of five public lectures on town planning and civic architecture. The first was delivered last week at the City Art Gallery.

Accident and Purpose.

In explanation of the course Professor Beresford Pite said the purpose was to trace the elements of order and architectural beauty in cities both of the ancient and modern world. Our modern standpoint in art, he declared, was liberal almost to looseness; the accidental had, with us, superior value to the purposeful, and the picturesque attracted us more than the intellectually achieved design. London and even Manchester, in their irregularity, misty humours, and gruesome hues, had an artistic appeal that thwarted a clear vision of civic architectural decency. There were vast elements of undesigned beauty without doubt in sites, in atmospheric effect, in the unaffected purposes of chimneys, and in the mingled disorder of dwellings, gasworks, churches, and factories. Whilst giving these all the weight due to their inevitableness, they could not and must not be the basis of any respectable theory of civic design. The artist's tendency to resort to the show areas of a cathedral or Continental city when on a sketching tour must not inconsistently control the artist town-planner. He would find enough force in unavoidable circumstances to modify the harshness of line or crudeness of effect without seeking to pay sacrifice to the cult of the picturesque. The main principles on which he must rely were those of unaffected directness and simplicity of planning. These would be found constant throughout the history of all great city buildings, whether promoted by despotism or democracy, and assert themselves as the fundamentally true ideals of civic art, whether in pre-historic Mexico, in the partially explored world of Indian art, in historic Egypt, or onwards through the developing world east of and around the Mediterranean basin and into the new life of the west.

Ancient Examples of Town Planning.

The earliest pyramid towns of the dead exhibited a science of planning preceding that of the great royal cities of Upper Egypt. Thebes became the wonder city of antiquity, and remains so to us. The Assyrian world exhibited, in an astonishing series of palace cities, an organisation of plan having sanitary and civil beneficence that were tantalising because unattainable to our freer civilisation. Rational power and wealth concentrated in Mesopotamia upon great city buildings, essentially an art of town-planning, enriched with a literature of sculpture that had remained unrivalled. Babylon, in the course of an age, became the ideal great city of the ancient world; its streets, walls, palace, and tower exercised a potent spell over Alexander, providing him with ideals that ultimately controlled those of the Cæsars, and to a great extent had passed into our modern conceptions of grandeur and architectural glory. When we asked what we desired as a civic ideal in town-planning art, and sought to analyse the character and sources of our hopes, the achievements of the ancient world stood out in an historical survey as guides to high aspiration in their singleness, completeness, and architectural success.

THE JOURNAL "WANTED" ADVERTISEMENT COLUMNS.

Appointments Wanted.

4 lines (about 28 words) 1s. 6d.; 3 insertions 3s.

ARCHITECTURAL Assistant, thoroughly experienced. Has served Articles. Young and exempt from further military service. With firm on Government works twelve months. Excellent testimonials.—Apply, T. W., "The Gables," Amberley, Glos.

BUILDER'S and Contractor's Manager requires position as either general or outside manager. Well up in all branches, and a thorough knowledge of the W.D. Schedule. Age 44, and a life abstainer.—Apply, N. H. T., "Leafmore," Victoria Avenue, Surbiton, Surrey.

BUILDER'S General Foreman seeks re-engagement. Carpenter. Thoroughly experienced in all trades. Good manager. Town or country. First-class references.—T. B. Highbury, 93, Stanley Road, Wallington, Surrey.

CONSTRUCTIONAL Engineer or Contractor's Manager, age 44, is open for early engagement. Competent to take full charge outside or designing. Wide general experience.—Write locality and salary to Box 779, Willings, 125, Strand, W.C.2. 101

FIRST-CLASS Piecework Bricklayer or Working Foreman wants work. Will be discharged from R.E. on 15th, after long service.—J. C., 32, Darum Road, Ealing.

GENERAL Foreman, Clerk of Works, or Inspector, seeks re-engagement. Long experience, London and provincial. Reference good.—J. R., Lyncroft House, Lyncroft Gardens, West Hampstead, N.W.6.

GENERAL Foreman desires re-engagement. Thorough knowledge of all branches. Take off quantities, use dumpy, and read staff. Good organiser. Experienced in war contracts. Trade, carpenter.—Apply, Foreman, 9, Chepstow Road, Hanwell, W.7.

HIGH-CLASS Builder's Foreman disengaged. Active man (50 years). Large and varied experience. Quick and accurate in setting out, levelling, measuring, and thoroughly capable manager of men and work. Anywhere Great Britain.—H. C., 11, King Street, Cheapside, E.C.

THE Association of Builders' Foremen and Clerks of Works, 56, Old Bailey, E.C.—Experienced Foremen and Clerks of Works can be obtained by applying to the Secretary, Mr. J. W. Sawyer, 214, Clapham Road, S.W. Competent foremen and clerks of works are invited to join this Association.

TO Property Owners.—Advertiser desires engagement. Many years' practical experience in estate management. Supervision of repairs. Rents, etc. Excellent testimonials.—E. B., 21, Henry Street, Upper Kennington Lane, S.E.11.

WANTED.—Stairs, construction or alterations, and handrails continued, by T. Bradley, 64, Bellamy Street, Balham, S.W.12.

Miscellaneous.

6d. per line.

BOOKS.—Books on Building Trades, Engineering, Educational, Literary, Technical, and all other subjects; second-hand at half prices; new books at discount prices; catalogues free; state wants; books sent on approval; books bought; best prices given. W. and C. Foyle, 121-123, Charing Cross Road, London, W.C.

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(Lighting, Heating, Ventilation, and Sanitation), and Architectural Metal Work, supplied free of charge of **STRODE AND CO., LTD.**, 48, Osnaburgh Street, London, N.W., and 18, Easy Row, Birmingham.

SECOND-HAND Optical Mart
For the Purchase and Sale of
LEVELS, THEODOLYTES, DRAWING INSTRS.—Clarkson's, 338, High Holborn, London, W.C. (Opposite Gray's Inn Road).

BUILDERS and Others.—"The 'Standard' Timber Calculations" are indispensable. "The Builder" says, "Will be found useful by builders." On card, 10 in. by 7 in. Post free 1s. 6d., from the Compiler, Charles T. King, London Road, Sevenoaks, Kent. 107

SALE OF CRANES.

The Minister of Munitions points out that in virtue of the Order made by him under the Defence of the Realm Regulations on December 20, 1916, NO PERSON SHALL UNTIL FURTHER NOTICE SELL OR SUPPLY ANY CRANE, WHETHER STEAM, ELECTRIC, HYDRAULIC, OR HAND DRIVEN, EXCEPT UNDER AND IN ACCORDANCE WITH THE TERMS OF A PERMIT ISSUED UNDER THE AUTHORITY OF THE MINISTER OF MUNITIONS.

NOTE.—All persons must forthwith send in to the Director, T.M.4 (CRANES), Ministry of Munitions, Charing Cross Buildings, London, W.C.2, returns containing full particulars of all cranes, whether steam, electric, hydraulic, or hand driven, in their possession or under their control which may be for sale.

All applications for a permit in connection with the above order should be addressed to the Director, T.M.4 (CRANES), Ministry of Munitions, at the address above mentioned, giving full particulars of the crane, maker's name and number of machine, name and address of intending purchaser, price to be paid, and purpose for which crane is required. 106

Educational Announcements.

6d. per line.

R.I.B.A. EXAMINATIONS.

Special personal system of preparations by correspondence or private tuition, Bond and Batley (A. G. Bond, B.A., Oxon, A.R.I.B.A.), 96, Grosvenor Road, S.W. Tel. 7036 Victoria.

Appointments Vacant.

6d. per line.

PROFESSIONAL Gentleman wanted to write articles upon architectural perspective. One capable of preparing lessons on the subject.—Apply, stating qualifications, to the Bennett College, Sheffield. 103

COMPETITION.

THE BOLTON SCHOOL.

LORD LEVERHULME TRUST.

THE TRUSTEES OF THE BOLTON SCHOOL AND LORD LEVERHULME invite Architects to submit preliminary designs in Competition for NEW PUBLIC SCHOOL BUILDINGS for 500 boys and 500 girls, with Chapel, Assembly Halls, Library, Science, Art, and Craft Rooms, Swimming Bath, and other accessories, which it is proposed to erect on a site adjoining Chorley New Road, Bolton, as soon as circumstances permit.

Mr. John Bradshaw Gass, Fellow R.I.B.A., and Mr. Arthur John Hope, Licentiate R.I.B.A., have been appointed to act as Professional Assessors. Subject to conditions premiums of two hundred and fifty guineas, one hundred and fifty guineas, and one hundred guineas are offered. If a final competition is deemed necessary each selected competitor will receive fifty guineas honorarium in addition to the premiums. Owing to the present condition of national affairs, no undertaking can be given as to commencing the building and there is no obligation to proceed therewith. The conditions of Competition specify the terms of Appointment of Architect.

Conditions of Competition and Instructions to Architects, with plan of site, can be had on or after February 23 next on application to the Assessors, Messrs. Bradshaw Gas and Hope, 19, Silverwell Street, Bolton. One guinea deposit to be made with application, which will be refunded if Conditions are returned within one month or on receipt of Competition plans in accordance with instructons.

By Order,
J. R. Barlow, Chairman,
Hall & Son, Solicitors, Secretaries,
of the Trustees of the Bolton School.

January, 1918. 105

When the War is over

the huge building operations that are already provided for, and the many others that will arise, will bring such a time of prosperity to the Architectural and Building World as has not been known for many years.

The essential policy of every careful business man is to foresee his requirements for that time and to make provision therefor.

One of those requirements will assuredly be advertising space, and very shortly after peace there will be great pressure on the advertisement pages of technical publications.

Most firms will find it necessary to augment their business announcements in order to emphasise that their factories have reverted to the production of their pre-war specialities.

A certainty of the near future is a considerable rise in advertising rates.

Every adjunct to publishing—composition, printing, paper, blocks, &c.—has increased in cost enormously, and these increases will of necessity be reflected in advertising rates.

Contracts are being made today at pre-war rates, and manufacturers who place contracts now not only benefit largely immediately, but still more largely when the pressure comes.

They will make certain, too, of getting their announcements published—a matter of considerable importance, as already there is a great scarcity of paper, and supplies will not be equal to requirements for a long time after the war ends.

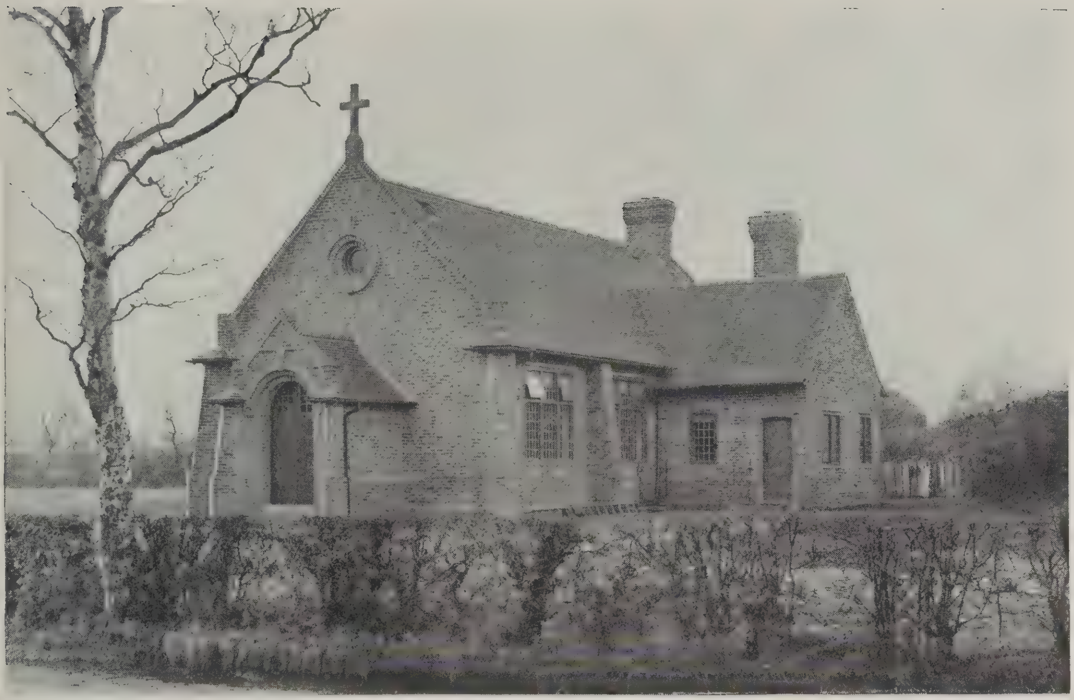
Every paper will be compelled strictly to limit its pages, and it may be impossible to provide space for new advertisers.

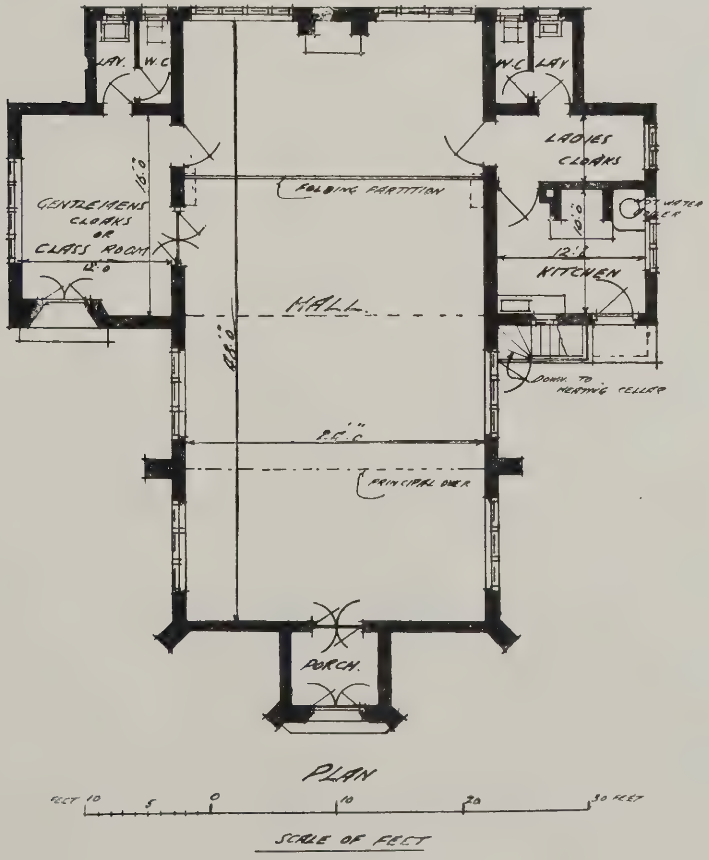
These are matters well worth discussing immediately with

The Advertisement Manager,

The Architects' and Builders Journal,

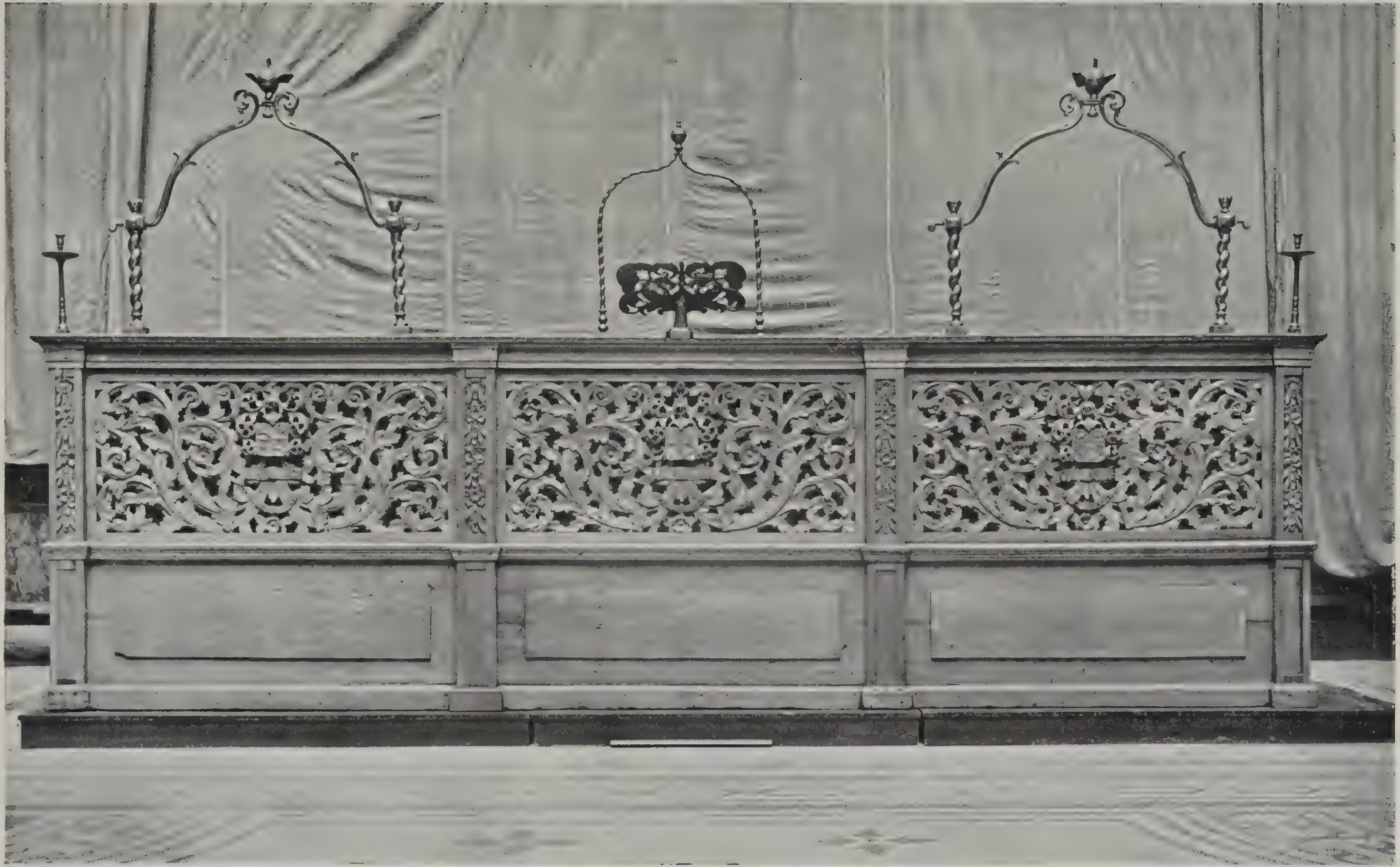
27-29, Tothill Street, S.W





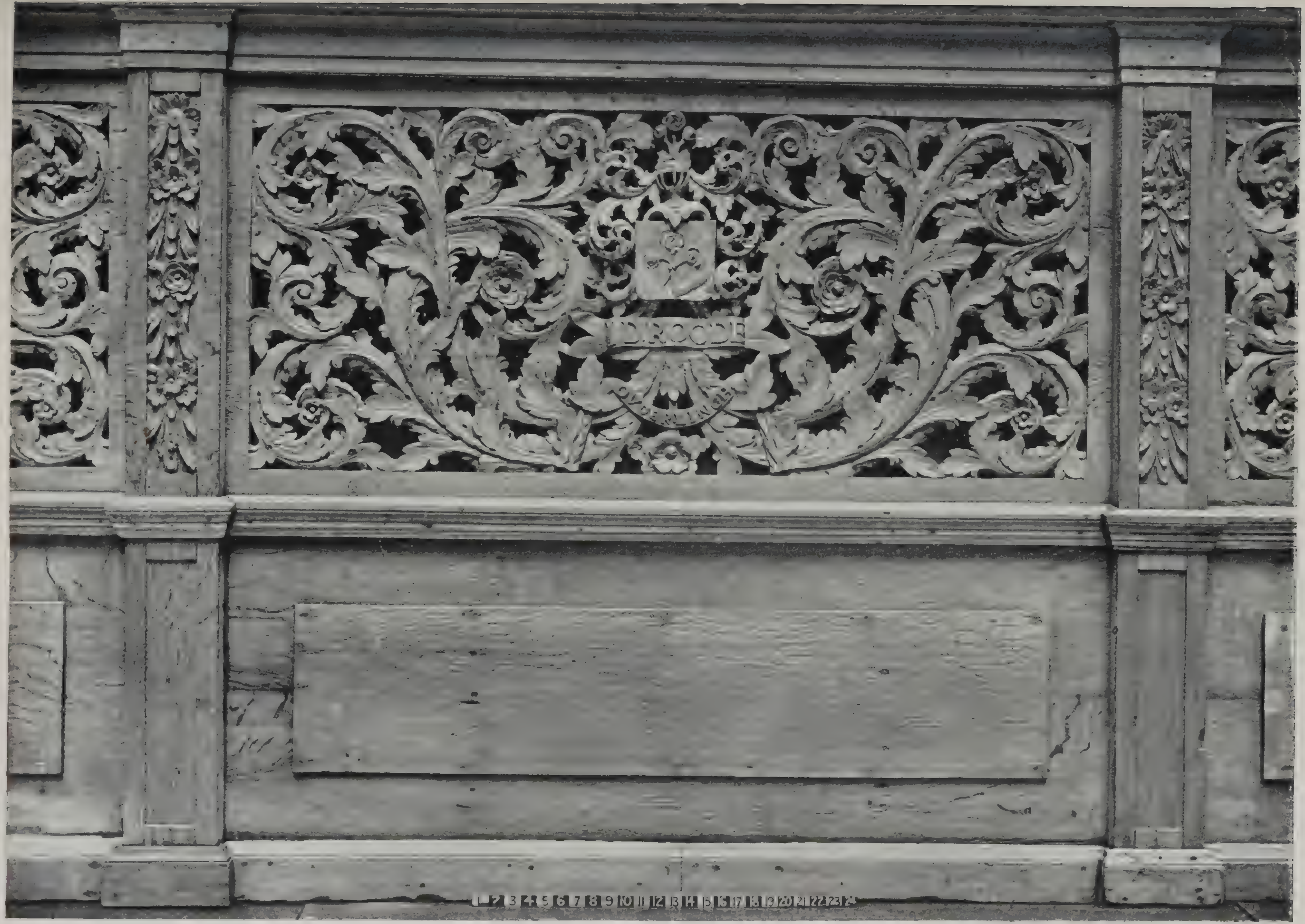
CURRENT ARCHITECTURE (SERIES IV.). XLIX.—CHURCH HOUSE, WEAVERHAM, CHESHIRE.

DOUGLAS C. LEIGH, A.R.I.B.A. ARCHITECT.



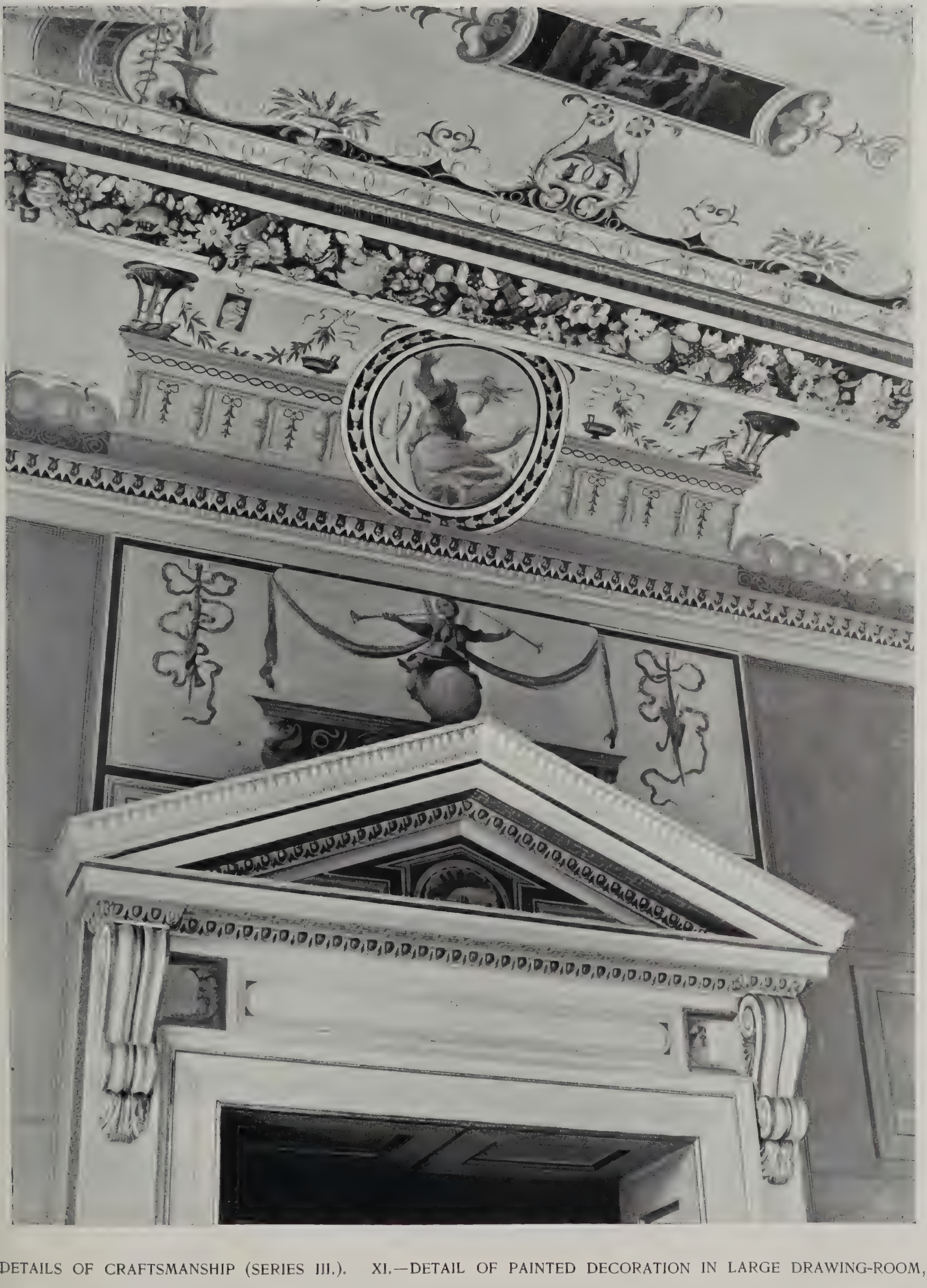
DETAILS OF CRAFTSMANSHIP (SERIES III.). IX.—CARVED SCREEN FROM THE LUTHERAN CHURCH IN ALKMAAR, NORTH HOLLAND.

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)



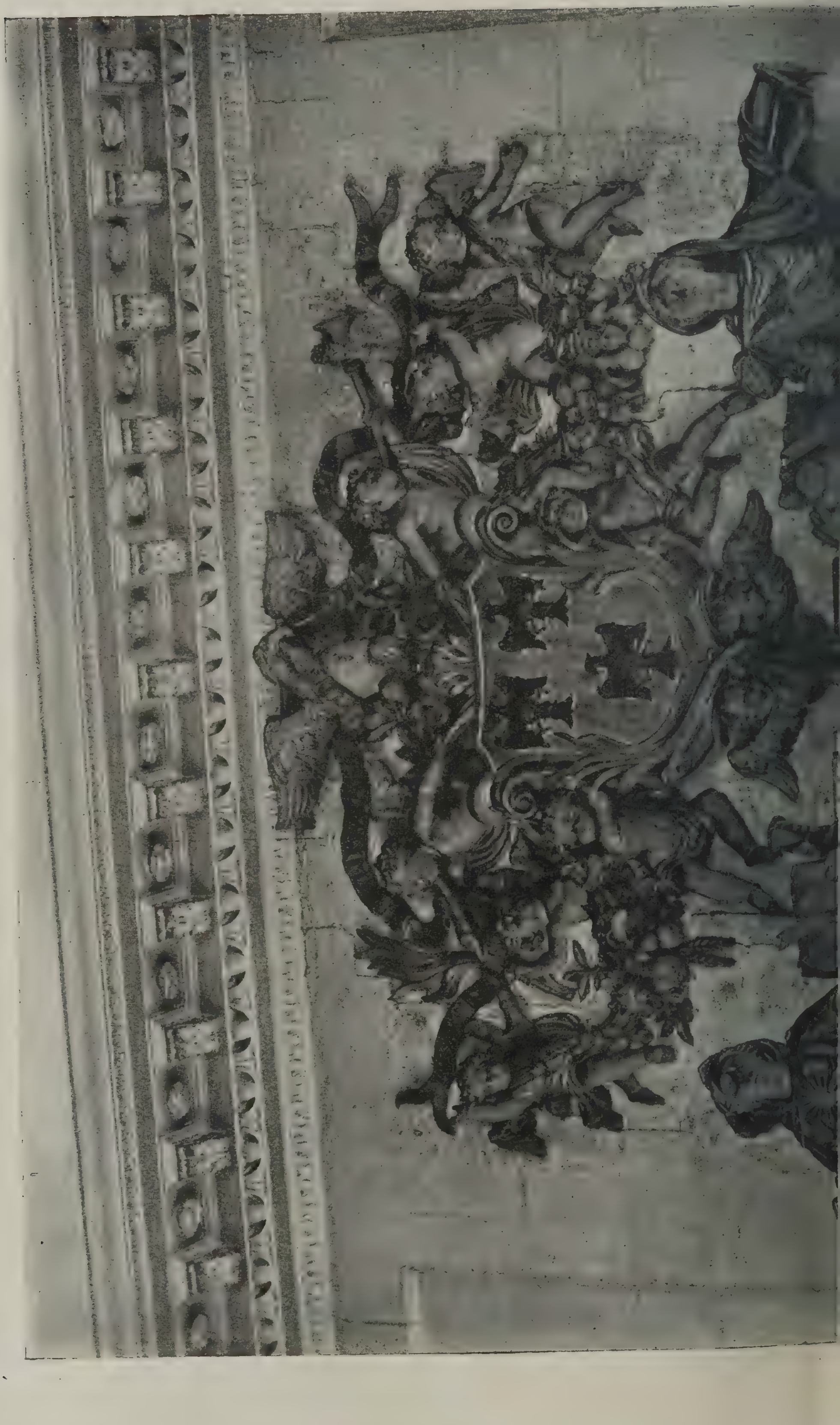
DETAILS OF CRAFTSMANSHIP (SERIES III.). X.—DETAIL OF CARVED SCREEN FROM THE LUTHERAN CHURCH IN ALKMAAR, NORTH HOLLAND.

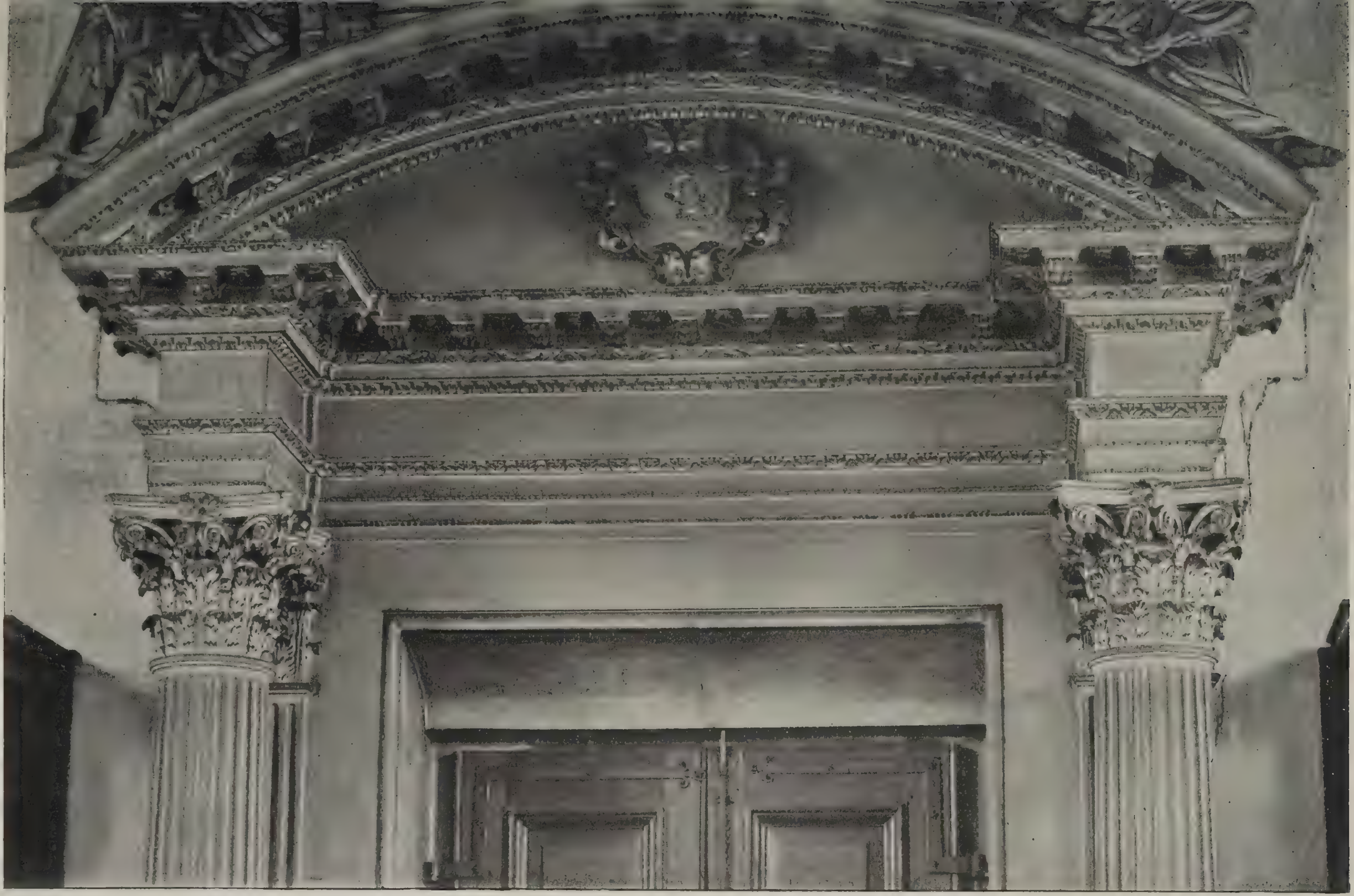
(*Reproduced by courtesy of the Director of the Victoria and Albert Museum.*)



DETAILS OF CRAFTSMANSHIP (SERIES III.). XI.—DETAIL OF PAINTED DECORATION IN LARGE DRAWING-ROOM, DEYSBROOK, NEAR LIVERPOOL.

BY ALFRED STEVENS.





DETAILS OF CRAFTSMANSHIP (SERIES III.). XII.—DETAIL OF DOORWAY IN THE LIBRARY, QUEEN'S COLLEGE, OXFORD.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

FEBRUARY 20, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1207.

INCREASE IN THE PRICE OF THE JOURNAL.

WITH our issue for March 6 next, the price of the Journal will be raised to sixpence. We regret the necessity for this increase, which, our readers will readily understand, has become evitable. Paper has reached an exorbitant price, e fine process blocks which are a specially valu- le feature of the Journal have become enormously ore costly owing to the scarcity of the metals sential to their production, and the general cost of inting has advanced very considerably. Conse- ently the proprietors are compelled to raise the ice of the Journal.

In preferring this course to the alternative of ducing quality, we are assured of the general proval and support of our readers.

WE publish this week the awards in four of the provincial sections of the R.I.B.A. national housing competition. Our readers ll naturally desire to know why these lists of sults are not accompanied by illustrations of the nning designs, and we feel bound to explain this parture from practice and precedent. With dinary competitions we are, as a rule, afforded cilities for showing the successful designs. In present competition, for some inexplicable ason, such facilities are denied us. Yet in each se the successful designs in these competitions ve been publicly exhibited, and we are unable to derstand why publication in the technical journals delayed. Surely it would be advantageous the scheme to seek the promptest and fullest blicity. In one instance we are informed that he designs must first be sent to London." Why, are at a loss to conceive, except upon a reluc- t assumption of some entanglement of red tape some wayward and capricious intervention of ra. From the outset, we have supported with arty goodwill this great national scheme of ising, and we must confess to some surprise at ng thwarted in this further endeavour to stimu- e interest in it. No doubt the pleasure we should ve in publishing the successful designs is merely stponed; but our point is that the postponement innecessary and untoward.

* * * *

n the "Board of Trade Journal" (which, it is re justice to note in passing, has lately entered n a new phase of energetic utility, and is ren- ing good service to trade and commercial inte- ts) of February 14 are published the recommen- ions of the committee appointed last April by President of the Board of Trade to consider and ort on the position of British manufacturers and rchants with respect to pre-war contracts. It ame necessary to institute this inquiry owing to manifest hardships and difficulties suffered by se contractors who, having figured on one set conditions, found themselves suddenly con- nted by another and a vastly more unfavourable Enormous increases in the cost of materials, letion of the labour market, and the intervention he Government, operated with special intensity the building industry, and several contractors were brought before the Courts to enforce the fulfilment of contracts on which the Government had forbidden them to work. From this intolerable and absurd position a measure of relief was obtained under the Courts (Emergency Powers) Act, 1917 (7 and 8 Geo. V., c. 25), in which section 1, subsection 1, applies to contracts "(*a*) for the construction of any buildings or work, or (*b*) for the supply of any materials for any buildings or work entered into before August 4, 1914. Any party to such a contract may apply to the Court, and if the Court is satisfied that (*a*) owing to the prevention or restriction of, or the delay in, the supply or delivery of materials or (*b*) in the diversion or insufficiency of labour, occasioned by the present war, the contract cannot be enforced according to its terms without serious hardship, the Court may, after considering all the circumstances of the case, the position of the parties, and any offer made by any party for any variation of the contract, suspend or annul the contract, stay proceedings for the enforcement of the contract, or any term of it, or any rights arising thereunder, on such conditions as the Court may think fit." In further sections, this principle is applied to other industries, and it may be fairly said to protect the contractor from the worst consequences of his predicament.

* * * *

There were, however, innumerable instances in which, prior to the passing of this Act, and before building operations were positively prohibited, the builder was held to a contract on which the all-round rise in prices realised heavy loss where profit was reasonably anticipated. With this point the Committee deal very guardedly. "In certain of such cases," they think, "some allowance might reasonably be made, but it should be assessed under the principle administered by the Losses of the Realm Commission. In other words, it should be strictly in the form of an indemnity, and not in the form of compensation. No payment for loss of profit should be paid out of the public purse." It is doubtful whether even this grudging recommendation would have been made except for the encouragement of traders to maintain "the sanctity of the British contract" with respect to foreign customers. This also is apparently the chief reason why the Committee decline to recommend legislative cancellation of contracts. British credit must not be damaged abroad, nor would it be just to impose on the trader the heavy losses involved in upholding it. It is therefore suggested that the British trader should be indemnified for losses thus incurred, and that the foreign Governments concerned might be included in the arrangement.

* * * *

Professor Beresford Pite, in the first of the series of lectures on "Town Planning and Civic Architecture" which he is delivering at the Manchester City Art Gallery at the invitation of the Manchester School of Architecture, expressed very well indeed the difference between picturesqueness and what Professor Lethaby has called "tidiness." It is important that this distinction should be made clear, because the public mind is much confused about it, not to say completely muddled. It is in love with picturesqueness, and would indulge this amour at the expense of tidiness. Slums and smoky towns are often picturesque, and appeal to the picture-maker almost as powerfully as the ragged and grubby slum child. For some rather obscure reason, a tidy town or a clean and decently clothed child loses artistic interest; and, as Professor Pite said, "London and Manchester, in their irregularity, misty humours, and gruesome hues, had an artistic appeal that thwarted a clear vision of civic architectural decency." He acknowledged the vast elements of undesigned beauty in sites, in atmospheric effect, in the unaffected purposes of chimneys, and in the mingled disorder of dwellings, gasworks, churches, and factories; but to this perhaps too generous admission he appended the very necessary warning that mere sensuousness of this sort—he did not put it so bluntly as that—must not be allowed to prevail against order, health, and decency. Merely emotional values must give way to those that are more rational and more wholesome. We must not "pay sacrifice to the cult of the picturesque." The saner and purer conception of beauty is no new thing. Thebes and Babylon had it. In fact, it is inveterate, and departures from it are so many aberrations from the rule of reason, principle, and purpose. Yet it is very necessary just now to advance the claims of dignity and decorum—that is, to tell the public exactly what town-planning means.

* * * *

Paris, it had been somewhat rashly assumed, enjoyed an enviable immunity from air-raids. This illusion having been rather rudely dispelled, further steps are now being taken to safeguard the art treasures in which the city abounds. M. de Nolhac, curator of the Musée de Versailles, and M. Chaussemiche, architect to the Palais, have, in concert, elaborated measures for the protection of the works of art in the Château de Versailles and in the Park. The beautiful bronze vases of the period of Louis XVI. in the Orangery gardens are being taken inside the building, and some of the less portable objects are being protected with sandbags. It is a wise precaution, which, however, Londoners have no need to imitate. Except for Trafalgar Square and Leicester Square, we have no outdoor collections of statuary, and the examples that stand in more or less splendid isolation have severally but the very remotest chance of being hit. Our indoor monuments have been, generally speaking, long ago amply safeguarded against the assaults of the enemy; who, however, finds it exceedingly difficult to come anywhere near them, and still more difficult to get away.

* * * *

Another item of French news that comes to us, like that just cited, from our vigorous and enterprising contemporary, "Le Batiment," is that M. Emile Massart has proposed to the Conseil Municipal the erection of a monument to commemorate the victory of the Marne. A committee of experts will inquire into the best ways and means of accomplishing this object, and, after examination of all the data, will base upon them the conditions for a competition. Our French friends may be congratulated on their promptitude, and this can be said without prejudice to our own grim determination to celebrate no victories until German militarism is finally and completely overthrown. Memorials to the valiant dead are in another category, and there is no particular reason for postponing them. Does not the incident seem to mark a striking difference between the temperaments of the two nations? The one hastens to record a particular episode while it is still vivid; the other awaits a final issue on which to generalise with deliberation and detachment. There is m to be said for and against both habits. Whe the Frenchman excels in vigour, his impressior is apt to grow strange and almost inexplic when the passion that inspired him has been lived; while our own stolidly British abstractions apt to be so splendidly null that time cannot n them more insipid.

"SPECIFICATION," 1918.

WAR-TIME conditions have caused some sl delay in the issue of the 1918 edition "Specification," which, however, is ready for immediate publication. In preparing issue special attention has been given to cur needs and to subjects of topical interest. The sec devoted to special articles has been gre extended, and includes many new and valu articles. "National Housing Up to Date" s marises the history of the movement, gives the text of the Local Government Board Circula local authorities, and presents a valuable body architectural and other expert opinion on hou requirements. The Government housing prov at Well Hall is described, and there are illustrat of some of the Well Hall houses, of the m designs prepared for the Special Report on hou in Scotland, and of a group of concrete cottage Chepstow. "Modern Industrial Construction" illustrated by several examples, including the dye-works at Bootle, a building on the unit sys for the Gramophone Company at Hayes, an exar of concrete block construction as applied to tories, a coal-bunker and a water tower in reinfo concrete, and a new silo and grain-hanc plant at Hull. "Some Materials of Rapid Const tion" is a very timely summary of the resourc this kind, dealing with steel and iron, buil blocks and partition slabs, asbestos-cement sl and tiles, miscellaneous roofings, damp-proof co ing, rapid floor construction, building board, sp fittings, warehouse and other patent roof gla and steel staircases. "Some War-Time Gas Us has been specially contributed to indicate the m important present applications of gas to natic business, and domestic purposes. "Cold Storag National Necessity," is another most timely art in which some of the leading principles and sys of cold storage are described. That cold sto has been unduly neglected in this country is obv from the present food shortage, which invests enormous importance the means of avoiding fu food famine. Although cold storage is main matter for specialists, it comes well within the view of architects, who may derive from this ar a very useful knowledge of systems and resou In "An Industrial Parliament for Builders" A. G. White, secretary of the Institute of Buil and general secretary of the National Federat gives a very clear account of the inception, aims, possibilities of a great movement that se destined to revolutionise industrial conditions. C fresh contributions deal with "Painting and Dec tion under War-Time Conditions," with the "C and Cure of Dry Rot," and with the "Laying Parquetry Flooring." Besides these special art there is the usual vast bulk of detailed informa upon every phase of building and kindred activi to which this annual volume is the most compre sive guide in existence, embodying, as it does, contributions and revisions of hundreds of hi qualified experts. A section, including a speci tion, is devoted to all the leading department the industry, including that of the "Illuminating E neer," and the section on reinforced concrete i particular value.

HERE AND THERE.

LREADY, as the Journal has faithfully informed us, the next Royal Academy Exhibition is being arranged, and the timely minder will hasten many a laggard brush and raper, and many a pulse—supposing that the lerly men who must again form the bulk of the hibitors have not outgrown their capacity for lpitation, and that the women have not grown dainful of such mid-Victorian weakness. It is occasion for sadness if "Hearts that once beat gh for praise now feel that pulse no more," and annot believe that we have grown so callous as be proof against these minor thrills, even though have steeled our hearts to endure the worst that n befall us in a world-shaking war. For my rt, I could never find it in my heart to regard with ll indifference, still less with bitter disdain, the anest daub or the most unlovely image that finds way into the Academy, because I have the habit a vicious habit, if you will—of reading into the nting or the sculpture some fellow-creature's sations of hope and fear. This is to confess to deplorable weakness, incapacitating me for a tic. I remember that Ruskin scorned it as "The thetic Fallacy," and was as much given to it as man. I am rather wondering whether there l be much difficulty about getting the frames de, and whether it would not have been wise to pend the regulation that requires them. Scarcity l dearness of wood and labour will lend new ce to the ancient sneer that the frame is worth re than the picture. Yet a frameless picture, I nit, looks but little less vacuous than a picture-s frame. In the statuary department, bronze l marble will be even more scarce that they were t year, when plaster was predominant—a mean dium but a kindly, and of a texture that, on asion, is much more suitable to its subject than ne or metal.

* * * *

t has always seemed to me to be probable that raham Cowley, better as essayist than as poet, s the originator of the Royal Academy when, e in the seventeenth century, he published his roposition for the Advancement of Experi-ntal Philosophy"; for though that essay was inly a plea for scientific education and the anisation of research, it started, I imagine, the vement that led to the formation, in 1754, of the iety for the Encouragement of Arts, Manufac-es, and Commerce, in Great Britain. It was h the help of this society that the artists held, in o, their first important public exhibition. In ember, 1768, a charter was granted to "The al Academy of Arts in London, for the purpose Cultivating and Improving the Arts of Painting, lpture, and Architecture," with Sir Joshua nolds as President. T. Sandby was the Pro-sor of Architecture. Its first home was in nerset House, whence it moved in 1836 to falgar Square. Burlington House, the nucleus he present home of the Royal Academy, may or not have been designed by Richard Boyle, d Earl of Burlington. In adding the colonnade, 718, he was at least assisted by Colin Campbell, hitect. But the Earl certainly did architecture eral good turns. He repaired at considerable ense St. Paul's, Covent Garden (Inigo Jones, hitect), and he published designs by Inigo es, as well as Palladio's "Antiquities of Rome." e was pessimistic about the effect of the latter lication:—

> "You show us Rome was glorious, not profuse,
> And pompous buildings once were things of use:
> Yet shall, my lord, your just and noble rules
> Fill half the land with imitating fools,
> Who random drawings from your sheets shall take,
> And of one beauty many blunders make."

No need of prophetic insight to foretell that result; for are not all good things subject to abuse?

* * * *

Banks and Barry began their Academy buildings in November, 1868. But I want to hark back to Somerset House. Among the original members of the Academy were two ladies—Mrs. Mary Moser and Angelica Kauffman, both Swiss. William Chambers was also one of the original members, and it was no doubt he who employed Angelica to help to decorate the Academy's old Council Chamber in Somerset House. Henry Fuseli, who became keeper of the Academy in 1805, is rather mercilessly described by Haydon as "a little white-headed, lion-faced man, in an old flannel dressing-gown tied round his waist with a piece of rope, and upon his head the bottom of Mrs. Fuseli's work-basket." He was "a most grotesque mixture of literature, art, scepticism, indelicacy, profanity, and kindness. He put me in mind of Archimago in Spenser." This understudy to Archimago "painted with his left hand, never held his palette upon his thumb, but kept it upon his stone slab, and being very near-sighted and too vain to wear glasses, used to dab his beastly brush into the oil, and sweeping round the palette in the dark, take up a great lump of white, red, or blue, and plaster it over a shoulder or a face." He delivered twelve lectures at the Academy. They attracted much attention when published, and the impression I have from reading them some few years ago is that they showed an uncommon grasp of principles and an anticipation of modern views on art. Reynolds's discourses have, of course, become standard English literature. Walter Thornbury recalls that one day while Reynolds was lecturing at Somerset House the floor suddenly began to give way. Turner, then a boy, was standing near the lecturer. Reynolds remained calm, and said afterwards that his only thought was what a loss to English art the death of that roomful would have been. One's natural curiosity as to what was the matter with the floor (dry rot is too cheaply cynical a suggestion), and as to how the roomful of genius escaped the impending doom, Mr. Thornbury does not gratify.

* * * *

In the allusive way, we speak of Downing Street (alternatively of Carmelite Street or Playhouse Yard) when we mean the Government; of "The Old Lady of Threadneedle Street" when we mean the Bank of England; of Burlington House when we mean the Royal Academy; the object being sometimes the avoidance of tautology, but more often the recoil from blunt direct reference when the allusion is not complimentary. Burlington House is now so familiar that we are apt to forget the prior equivalence of Somerset House. Yet the latter building was at first so closely identified with art and letters that its name formerly stood for "the things that matter," and this particular example of metonymy became so popular that a weekly sixpenny periodical dealing with art and literature was called "Somerset House."

DIOGENES.

THE BASILIQUE DE NOTRE-DAME DE BREBIERES, ALBERT.

BY ROBERT CROMIE, A.R.I.B A.

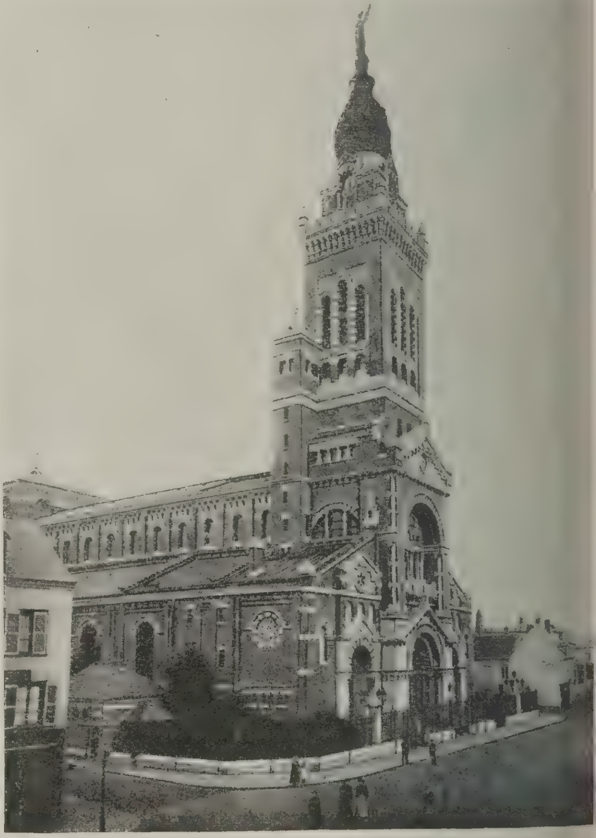
ALBERT lies about the junction of two Roman roads between Amiens and Arras-Somme; it was probably a Roman depôt in 54 B.C. when the legions of Cæsar infested Gaul. The ancient name of the town was Ecrembatis, and later Encre, on the river Ancre. Ecrembatis was the property of Dagobert I., and it probably dates from the seventh century. Its name signifies the "place of the abbey"—whose lands are quoted to have been the "first donation of the Kings of France to the celebrated monastery of Centule . . . founded about 625."

Threatened by the devastation inflicted by the Normans to neighbouring cities in 880, the town was fortified by Hugues Capet.

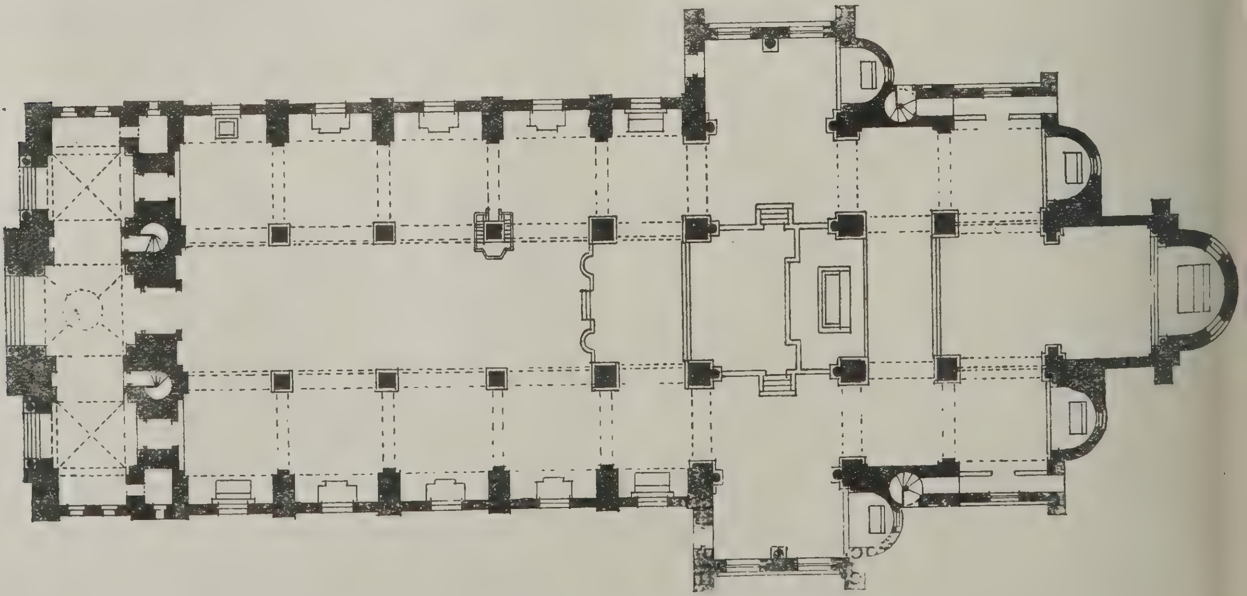
Skipping the pages of history, we find its name again changed to Ancre, and in 1617 Louis XIII. gave his favourite Charles d'Albert the marquisate with letters patent to alter its name to Albert. In 1769 Albert became the property of the celebrated Duc d'Orleans. In 1653 Condé sacked the town; only its ramparts withstood the conflagration; and, according to an eye-witness, it was "like an image of the ruin of Jerusalem by Titus." In 1914-15 it was reduced to a Pompeii by the German bombardment, and the "basilica" of Notre-Dame was blotted out. Its tower, however, remains, a glorious battered wreck surmounted by the fallen Vierge, a dominating landmark in a chaos of pitiable destruction.

The church was a modern one erected by Edmund Duthoit in 1884 on the site of the old Gothic parochial church, and the origin of its foundation was the discovery of a little statue of the Madonna. This is what the old chroniclers tell us: A shepherd, says tradition, was one day minding his flock when he noticed a lamb completely separated from the rest diligently munching the grass. At first he would not disturb it, but after a certain time he called the animal. The lamb continued to graze, and even when hustled by the dogs stubbornly refused to move. The shepherd was mystified. He struck the ground near the lamb with his staff, and was astonished to hear a voice cry, "Stop, shepherd: you hurt me." He dug gently into the ground . . . and discovered statue of the Virgin with a lamb at her feet, carve in stone. . . ." The miracle caused a con motion: two different parishes claimed the statu and there arose a dispute, which was decided favour of Encre, or Albert.

The chapel of Brébières was created in the field and near by was a little monastery. Unfortunate



General View.



CHURCH OF NOTRE-DAME DE BREBIERES, ALBERT: PLAN.

EDMUND DUTHOIT, ARCHITECT.

re is no existing documentary description of the ginal chapel. All that is known is that an tory was built for the reception of the statue out the end of the tenth century, and this was bably a rectangular basilica built of local lime- ne and covered with a wooden roof.

In 1577 this chapel was rebuilt by Jacques Iumières, captain of fifty men-at-arms, Governor Peronne, then lord of Encre, and his master- son, or architect, was Jehan Bruiant. More ndiose than its predecessor, it boasted a façade rtail), a nave, choir, and seignorial chapel. gun in the springtime, it was completed by the of 1577.

Recapitulating its history, Encre, with its for- ss, was captured by the Count of Flanders in 15. It suffered at the hands of the soldiers en te for Bouvines and Mons under Philippe guste and Philippe le Bel. The year 1337 saw commencement of the Hundred Years' War and advent of English troops under the Dukes of ncaster, Warwick, and Buckingham. Encre, illy, and Miraumount were burnt in 1523. In 3 the Château d'Encre was razed to the ground.

Then came the Thirty Years' War. In 1653, ndé laid siege to Albert, ruined and sacked the vn. In 1660 it was again burnt to the ground, this time by accident, its wooden houses catch- fire. With the exception of one house Albert l disappeared.

The demobilisation of the armies in 1659 found plains of Brébières infested with vagabonds l marauders. The Benedictines had long since parted and the charge of the sanctuary fell into er hands. The "lieux" became a pleasure und which rang with laughter and song and the sic of flute, rebec, and corneuse, while "entre ıps on vidait forcé pintes de vin." The chapel s closed and the convent, allowed to fall into ns, became a smugglers' den. The famous tue was therefore transferred for safety to the urch of Albert in 1727. A year after Louis XV. lered the demolition of the chapel, and the cele- ited plains of Brébières were let as arable land. e day, it is hoped, a monument, "une colonne nmémorative," will be erected to mark its cient sanctity. Built after the fire of 1660, the urch of Albert does not appear to have been a narkable one: it possessed nave and aisles, and neath its tower was deposited the statue of Notre me de Brébières.

During the Revolution churches were closed by cree, but oratories were erected in private houses l the cult continued in secret. Albert was verned by a Committee. It was a reign of ror. Priests hid in holes and corners: the sons were full: the churches were robbed. In e name of the law the church of Albert was pil- ed, its bells and statues were removed. It was erwards used as a club and as a gunpowder rks . . . the famous statue disappeared.

The year 1792 brought the Republic, and, a year er the execution of Louis XVI. marked the treme measures of the Convention. With the fall Robespierre the Terror terminated. A new publican Government, the Directoire, was insti- ed in 1795, and in the same year Albert Church s reopened. By 1808 it was more or less tored, but not even the zeal and energy of its yen, the Abbé Dumont, could make it beautiful.

In 1882 came a new abbé from Amiens to Albert M. Godin. A man of taste and ambitious for his urch, he initiated a movement for its rebuilding, ich was accepted with the sympathy and appro- tion of the inhabitants. For some years the oject remained dormant. In 1884 Godin pub- hed a journal, "Le Messager de Notre-Dame." It was well received. Its numbers reached Rome, spread throughout Europe, America, and the Orient. It reaped a harvest financially golden, and the new church was commenced.

M. Edmund Duthoit, who was nominated architect, was a pupil of Viollet-le-Duc and was an authority on Oriental architecture. He had travelled much in the East. Viollet-le-Duc affirmed that "thanks to him and his notes brought back from the East the transition from Greek and Roman art to the Byzantine had at last been discovered." He was engaged by the Turkish Government, and had worked in Asia Minor, Algeria, Tunis, and Palestine. Monseigneur Yves Sainte-Marie neither stints his praise of Duthoit nor diminishes the honour where it is due. Quoting "Le Messager," he tells of the days and nights the Abbé Godin spent with his architect studying and preparing in collaboration every detail of "ce doux mirage, ce captivant travail!"

One day Duthoit arrived radiant with joy, and depositing an enormous bundle upon the abbé's desk said, "Now I may die: voilà votre eglise." M. Duthoit was a conscientious architect. "He continued his family traditions." We learn that his estimates were always accurate, his provisions were not exceeded. Duthoit died in 1889, leaving his old pupil, M. Bernard, to carry out the plans he had so well prepared in advance.

This new Basilica was begun in 1884 by a contractor from Armentières. In 1893 the famous statue was erected in the completed fabric.

On plan the basilica is a development of the early Christian form, of large and graceful proportions. It is apsidal, the centre abside being the sanctuary, flanked on either side with absides that terminate the aisles and the transepts.

A low tower covered with a very flat pyramidal roof surmounts the crossing. The internal dimensions are 83 metres by 39. The style adopted is Byzantine partly by reason of the proximity of Amiens Cathedral and so many Gothic churches, partly for economy and the use of local materials—brick and stone, but chiefly perhaps because the child is father to the man, and the artist of Rome, Naples, Sicily, and Palestine, the excavator of antiquity at Assos, was already attracted to a style which gave vent to his ability in a manner other than the Gothic, of which, however, he was far from ignorant.

Albert was Duthoit's great work. There he broke away from tradition and created the cumulative result of his life of study and application. His façade was successful and the minaret, or tower, surmounted by a copper dome supporting a Virgin by Roze, original and effective. His gilded statue was illuminated at night—an "effect" that would not be admissible everywhere; but here, dominating a peaceful country town lying in the plains, it had its significance and beauty. The interior was of extreme richness. Alas! so little remains to give a real impression of its "veritable enchantment." It is now a mass of débris—marble, mosaic, stone and brick are reduced to dust and ashes. In climbing about its ruins one can only imagine and regret. The photographs give a slight impression of its harmonious complication of detail of which the Albertins speak in terms of rhapsodic admiration. The sketch shows the minaret as it now stands, with Roze's statue inclining at a dangerous angle; it has become a landmark well known to the troops who have passed that way: it is called the Vierge d'Albert: it has been reproduced in bronze facsimile and sold in miniature thousands of times. The original is a work of much merit, its gesture of great dignity and grandeur. This, however, must not be confused with the "statue miraculeuse," the patron of Brébières and the basilica, the original of the little temple in the fields, which disappeared in the Revolution. This was not lost. M. Scribe-Poly, Mayor, faithful to the traditions of the locality, and brave in the teeth of the furious iconoclasts, had carefully and secretly removed the statue. The revolutionists arrived intent on its demolition—but too late; it had been sealed in a salt-butt and hidden in the back of a grocer's shop! On the re-establishment of law and order the famous statue was restored and finally placed in Duthoit's new edifice. The statue is a small one, measuring barely 4 ft. in height. The Christ is carried on the left arm, in the right hand a sceptre, at the feet a lamb, all carved out of the same block and painted as such relics usually are. The statue stands in a little niche flanked by half-columns supporting a pediment. There is something of the classic Athena in the pose and benignant smile.

Then this war. Albert was bombarded continuously from September 29, 1914, for five days. To quote the curé doyen, M. le Père Gosset, "the basilica was hit at several different times, especially on November 4 and February 6 . . . but on the terrible days of Christmas, January 14, 15, and 17, 1915, it received 253 shells—since then the roof and all the decorations have disappeared—only desolation remains . . ."

When Peace comes M. le Père Gosset will have a rude and glorious labour before him: "il tiendra la main de tous côtés, et ne se donnera pas de repos jusqu'à l'heure suprême" when the basilica will be once more rebuilt.

And the statue? Where is it now? Future history will perhaps again record the touch of guarding hands. Thus is conserved the ecclesiastic architecture of the world.

CORRESPONDENCE.

Cherry Orchard Estate Competition, Maidstone.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It would appear from pars. 13-14 of the above that the Town Council are intending to obtain designs from architects without the usual undertaking to appoint the successful architect to carry out the work.

The recent National Cottage Competition was an unfortunate precedent, but, in the interest of the country, a formal protest only was raised.

I trust you will do your utmost to stop this endeavour to extend a bad principle, in the absence of so many of the younger architects on active service.

HERBERT A. WELCH.

Isle of Grain, Kent.

Demobilisation and Reconstruction.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—The Council of the Society of Architects having been invited by the Conference of Architects, Surveyors, and Builders, and by the Council of the R.I.B.A., to express its opinion upon the recommendation of the Conference in regard to demobilisation, and to support the resolutions of the Conference and the general meeting of the R.I.B.A. on the question of the removal of building restrictions after the war, has unanimously passed the following resolutions:—

(1) "That the Council of the Society of Architects is of the opinion that the Conference of Architects, Surveyors, and Builders, as at present constituted, is not sufficiently representative, and should be enlarged so as to include representatives of kindre societies and institutions, and of unions and associa tions of manufacturers and workmen engaged in th building industry."

(2) "That the Council of the Society of Architect is in sympathy with the proposals of the Conferenc in regard to demobilisation, and with the principl contained in and the objects of the resolution passed by the Conference and by the general bod of the R.I.B.A. relating to the removal of restric tions on materials and building operations after th war. The Council is not, however, in accord wit the expressed terms of these resolutions, and i therefore unable to commit the Society of Architect to any proposals to co-operate in communicatin these resolutions in their present form to th Government."

C. MCARTHUR BUTLER, Secretary.

Society of Architects, 28, Bedford Square,
London, W.C.

THE PLATES.

The Ruined Church of Albert.

ALBERT CHURCH bears eloquent witness to th barbarity of the Germans, who, with delibe rate malevolence, bombarded it to the stat of pitiful ruin shown in Mr. Robert Cromie's vivi drawing. The history of the church is traced i the article beginning on page 78.

King Charles the Second's Block, Greenwich Hospital.

That part of Greenwich Hospital called Kin Charles's block comprises half the north elevatio and the whole east elevation of the right-hand win as seen from the river. At the time of its erectio Sir John Denham—more poet than architect—wa Royal Surveyor; but he, knowing little of building employed Webb to do the work. Webb in turn ver probably relied upon Inigo Jones to furnish th designs. The attic storey is a later addition b Wren. The cost was £36,000.

Painted Decoration at Deysbrook, Liverpool.

This is a further detail of Alfred Stevens' remarkable painted decorations at Deysbrook, nea Liverpool, of which a brief account was given i last week's issue.

An Early Eighteenth-Century Table.

The furniture of "Ditchley" (an early Georgia mansion near Oxford, designed by James Gibbs) i thoroughly in keeping with its architectural env ronment, being of extreme stability and having a appearance that is most aptly described as "monu mental." The table illustrated on the double-pag supplement in this issue has a marble top, which i supported by two couchant sphinxes, addorsec resting on a moulded plinth. In the middle is vase, linked to the sphinxes' heads by oak-lea swags.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restric tions on paper supplies, all elements of waste mus be rigorously excluded. Our readers, we are sure will gladly assist in promoting this object, which i an item in national economy. They can co-operat with us effectually in either of two ways—(1) B placing a direct subscription for this Journal, or (2 by placing with a newsagent an order for its regula delivery. Casual purchases—now here, now there— create a serious discrepancy between supply an demand, and cause wastage of effort and materials.

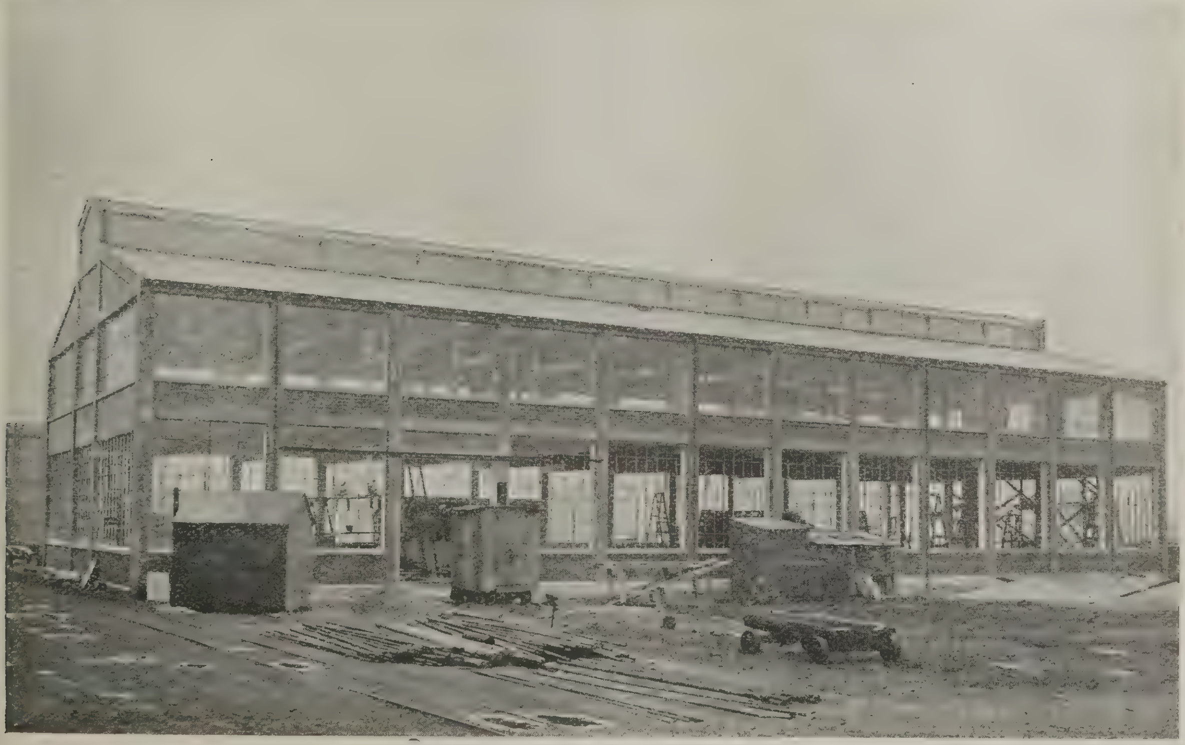
WAR·BVILDINGS·SECTION

A SHIPYARD JOINERS' SHOP.

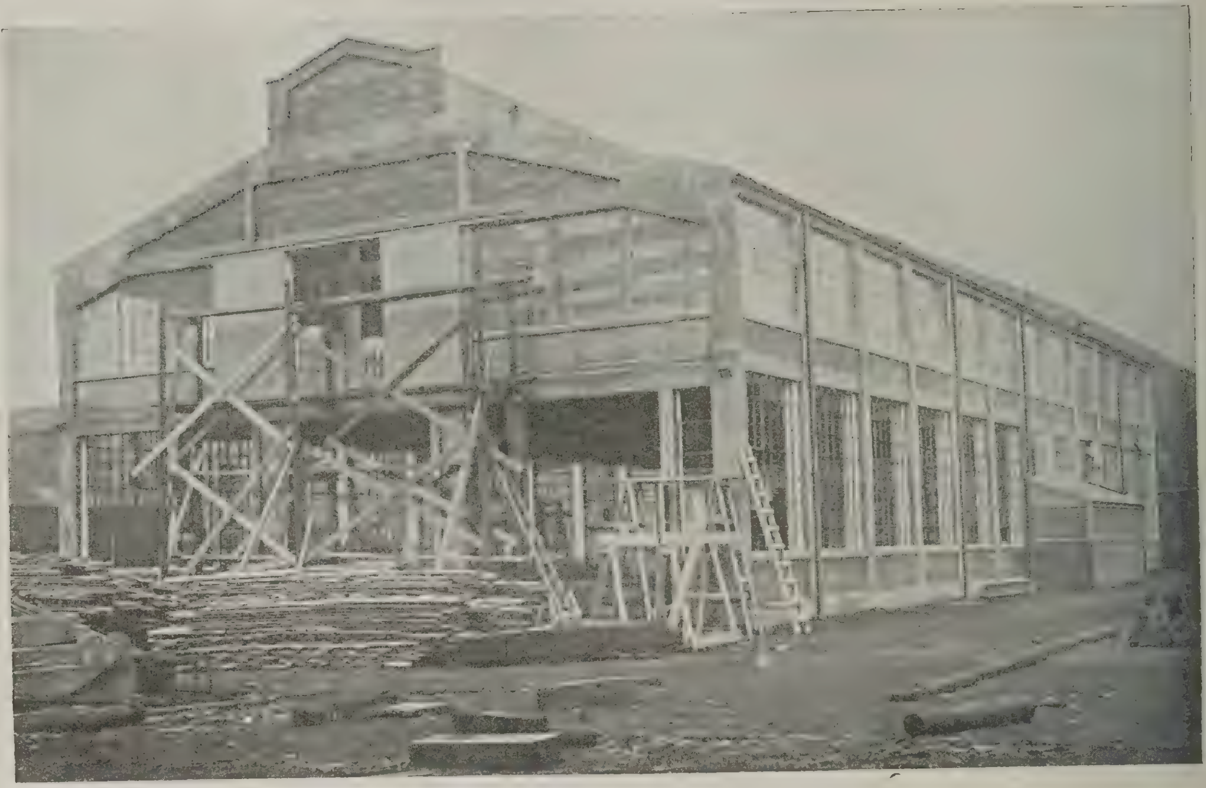
EVEN under the ever-present stress of war, most of us try occasionally to orm an idea as to future circumstances hen the familiar problems of competitive ndustry shall again have become our chief oncern.

To those connected with or interested in einforced concrete it must appear that om the many developments in reinforced oncrete engineering due to present conditions there must follow in due course a widely extended field of usefulness; no other result can be deduced from the wholesale removal of old ideas. Among the newer developments must be noted those connected with the shipbuilding industry. One example (a joiners' shop recently completed in an important shipyard) is shown in the accompanying photographs.

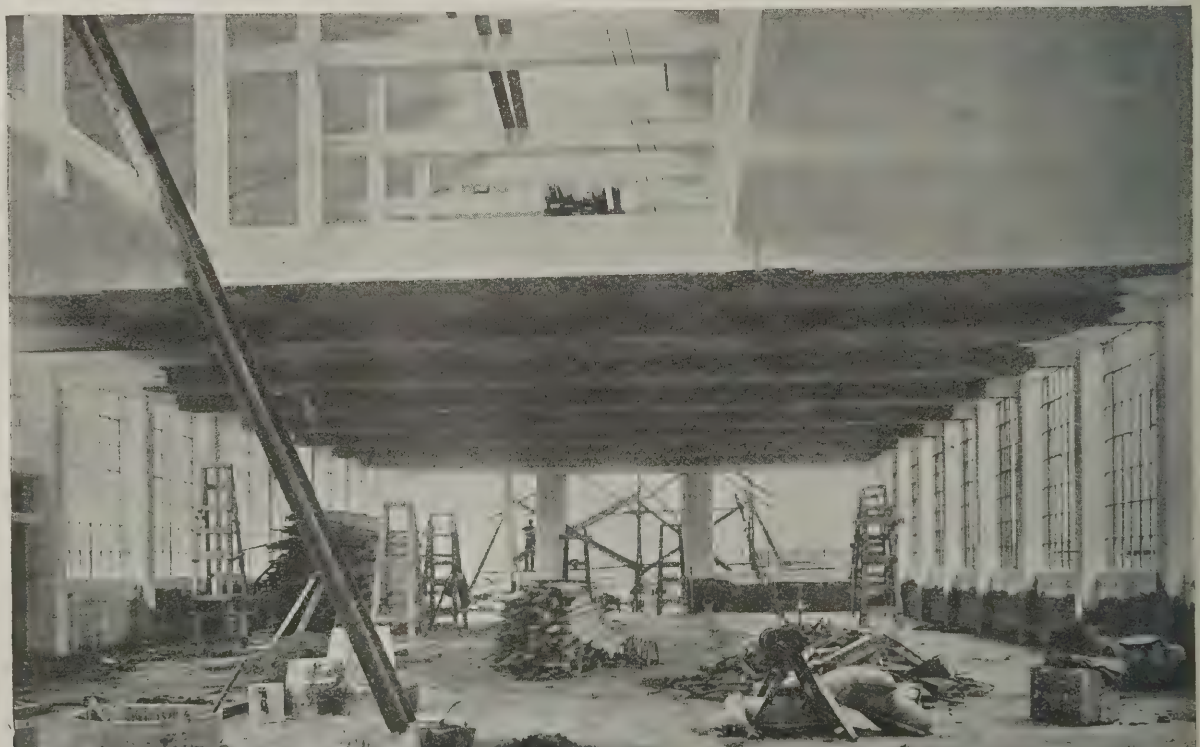
Probably the most striking feature of this building is the novel construction which by suspending the whole of the first floor from the trusses supporting the roof, provides a ground floor altogether clear of columns or obstructions of any kind, an arrangement which was regarded by the owners as of prime importance. The roof and roof trusses, as well as the rest of the building, are constructed of reinforced concrete, and the illustration at the end of the building in perspective clearly shows the truss in the gable.



JOINERS' SHOP IN THE SHIPYARD OF MESSRS. HALL, RUSSELL AND CO., LTD.



Exterior View showing Gallery.



View on Ground Floor showing clear Span. Note absence of Columns.

JOINERS' SHOP IN THE SHIPYARD OF MESSRS. HALL, RUSSELL AND CO., LTD.

This building is of the type nowadays ooken of as a "daylight building," a type hich, by its wholesale acceptance, marks n epoch in the development of industrial chitecture ; for it is now recognised that e advantages of abundant daylight are ot restricted to the obvious reduction in st of artificial illumination.

In its early days much of the inertia hich had to be overcome by the expoents of reinforced concrete engineering as due to an impression that the novel uilding operations associated with this pe of construction required more time an was necessary for the old-fashioned ethods, and in consequence tended to offt any advantages inherent in the newer pe. If there be one thing essential in uildings required for the purposes of a ar in progress it is speed of construction, nd the almost general adoption of reforced concrete for buildings for war urposes must establish for all time the mparative rate at which such buildings n be completed. Thus the particular uilding under consideration, which easures 135 ft. in length by 55 ft. in width ith a total height of 40 ft. from the round level to the ridge, and 27 ft. 3 in. om the ground level to the eaves, was mpleted in six months from the date of mmencement, and this despite its unual design.

It is almost invariably the case that a uilding must successfully bear examinaon from the view-point of financial outy, and it is perhaps worthy of note that e example illustrated, although conructed by responsible and experienced ontractors accustomed to such work, is evertheless emphatically what is known a "cheap building" in the ordinary ense of the term.

This remarkable structure illustrates in striking manner the fact that the utility reinforced concrete is not to be meaured solely by its ascendancy under the straightforward conditions of building commonly met with. It is a lasting record of the surprising economy and ease with which plastic concrete and pliant steel can solve the most awkward problems for us when they are under the control of experienced engineers.

Mr. A. H. L. Mackinnon was the architect.

R.I.B.A. HOUSING COMPETITION RESULTS.

The following results in provincial areas were made public last week:

Midland Area.

In this competition 107 competitors submitted 248 drawings. The assessors were Messrs. W. Alexander Harvey, F.R.I.B.A., Birmingham; Harry Gill, M.S.A., Nottingham; S. Perkins Pick, F.R.I.B.A., Leicester; and Sidney F. Harris, F.R.I.B.A., Northampton.

The drawings were on view at the Birmingham Art Gallery until Friday evening of last week.

The following awards have been made, viz.:

CLASS A.

First prize, £100: Stockdale, Harrison, and Sons, AA.R.I.B.A., Leicester.

Second prize, £50: N. B. Robertson, A.R.I.B.A., Leicester.

Highly commended: Arthur McKewan, A.R.I.B.A., Birmingham; Crouch, Butler, and Savage, FF.R.I.B.A., Birmingham; Edward Garratt and H. W. Simister, Birmingham.

CLASS B.

First prize, £100: Stockdale, Harrison, and Sons, AA.R.I.B.A., Leicester.

Second prize, £50: F. W. C. Gregory, Nottingham.

Highly commended: N. B. Robertson, A.R.I.B.A., Leicester; Frank H. Bromhead, Hereford; Charles F. Simms, Stoke-on-Trent.

CLASS C.

First prize, £100: F. W. C. Gregory, Nottingham.

Second prize, £50: Stockdale, Harrison, and Sons, AA.R.I.B.A., Leicester.

CLASS D.

First prize, £50 (variation on type B): Cleland and Haywood, Wolverhampton; second prize, £30 (variation on type A): Arthur McKewan, A.R.I.B.A., Birmingham.

Highly commended (variation on type A): Stockdale, Harrison and Sons, AA.R.I.B.A., Leicester; variation on type C: Cleland and Haywood, Wolverhampton.

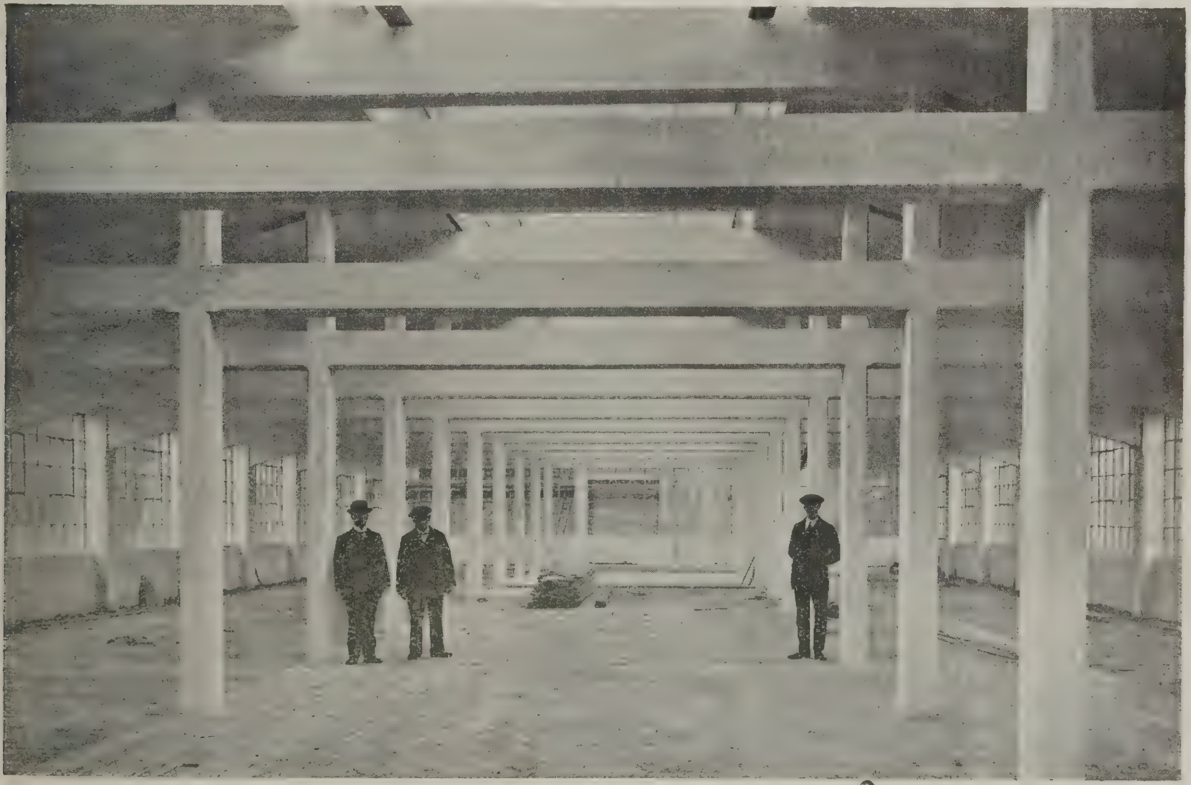
South Wales Area.

A number of excellent designs were submitted, and the jury of assessors, consisting of Professor Adshead, F.R.I.B.A., London; Mr. A. W. Swash, F.R.I.B.A., Newport, Mon.; Mr. D. M. Jenkins, borough engineer, Neath; Mr. J. F. Groves, F.R.I.B.A., Newport, Mon.; Mr. J. W. Smith, City Engineer's Office, Cardiff, assisted by Mr. William Thomas, contractor, Cardiff; and Mrs. G. E. Halliday, of Llandaff, had an arduous task in awarding the prizes. The designs were publicly exhibited from Monday, February 11, until Saturday, February 16, in the Museum Room, City Hall, Cardiff. The winning designs, those placed third, and honourably mentioned, will be sent later to the R.I.B.A., London, for reassessment and final award.

Following are the awards in the respective classes for the South Wales area:

CLASS A.

First prize: Mr. J. A. Hallam, 45, Partridge Road, Cardiff.



First floor suspended from Roof Trusses.

JOINERS' SHOP IN THE SHIPYARD OF MESSRS. HALL, RUSSELL AND CO, LTD.

Second prize: Messrs. Johnson and Richards, Merthyr Tydfil.

Placed third: Mr. Thomas A. Bevan, Queen's-chambers, Queen Street, Cardiff.

Class B.

First prize: Messrs. Johnson and Richards, Merthyr Tydfil.

Second prize: Messrs. A. Ll. Thomas and Gomer Morgan, Pontypridd.

Placed third: Mr. C. Ernest Lawrence, 73, Preston Avenue, Newport, Mon.

Class C.

First prize: Messrs. Johnson and Richards, Merthyr Tydfil.

Second prize: Messrs. C. A. Broadhead, Borough Architect's Office, Swansea, Glam.

Placed third: Messrs. Eaton and Cooper, 43, The Walk, Tredegarville, Cardiff.

Honourable mention: Messrs. A. Ll. Thomas and Gomer Morgan, Pontypridd.

Class D.

First prize: Messrs. Johnson and Richards, Merthyr Tydfil.

Second prize: Mr. A. F. Webb, Blackwood, Mon.

Placed third: Mr. Thomas Gibb, Post Office Chambers, Port Talbot.

Northern Area.

The plans submitted in the Northern Area are on view at the rooms of the Northern Architectural Association, 6, Higham Place, Newcastle-on-Tyne, until Saturday, February 23, between the hours of 10 a.m. and 4 p.m.

Following are the awards:

Class A.

First premium, £100: I. Hervey Rutherford, York.

Second premium, £50: Alex. Inglis, Licentiate, R.I.B.A., Hawick.

Class B.

First premium, £100: Alex. T. Scott, Huddersfield.

Second premium, £50: Knowles, Oliver and Leeson, Newcastle.

Class C.

First premium, £100: Knowles, Oliver and Leeson, Newcastle.

Second premium, £50: Alex. T. Scott, Huddersfield.

Class D.

First premium, £50: F. R. Dunkerley, Altrincham.

Second premium, £30: R. E. Hastewell, A.R.I.B.A., Haltwhistle.

Manchester Centre.

The following are the awards in the R.I.B.A. competition for Cottage Designs, Manchester Centre:

Class A.

First premium, £100: E. D. North, F.R.I.B.A., Llanfairfechan.

Second premium, £50: R. L. Collingwood, Rochdale.

Honourable mention: J. Arthur Coe, Cheetham, Manchester.

Class B.

First premium, £100: Messrs. Briggs and Thornely, Liverpool. (No second premium awarded.)

Class C.

First premum, £100: Messrs. Halliday, Paterson and Agate, Manchester.

Second premium, £50: H. L. North, F.R.I.B.A., Llanfairfechan.

Class D.

First premium, £50: Messrs. Halliday, Paterson, and Agate, Manchester.

Second premium, £30: H. L. North, F.R.I.B.A., Llanfairfechan.

Honourable mention: J. Arthur Jones, Rock Ferry.

Comment on these competitions appearing in our first Editorial Column should be read in the light of the statement that the local awards are subject to further assessment by the R.I.B.A.

EDINBURGH CASTLE AS A SCOTTISH WAR MEMORIAL.

In the House of Commons, Mr. Munro, replying to Mr. Tennant, said: The question of a Scottish National War Memorial in Scotland has been brought before the Government in connection with the larger scheme for the creation of an Imperial War Museum in London and with special reference to the fact that after the war Edinburgh Castle will no longer be required for the accommodation of any large body of troops. It has been suggested that no site could be found so appropriate to a Scottish National Memorial associated with the present war, and with other wars by land and sea in which the Scottish nation, Scottish troops or regiments, or men of Scottish birth or descent have played a part, as the castle of the ancient capital of Scotland, that, if His Majesty's Government were willing to allow it to be so used, under suitable safeguards for the protection of its architectural and other distinguishing features, an appeal would be made to Scottish patriotic sentiment which would meet with a unanimous response.

A LADY'S VIEWS ON HOUSE PLANNING.

Writing under the title, "If I Were My Own Architect," in the "Lady's Pictorial," a lady expresses the following ideas:—

The most important principle that should be kept always in mind is that the living-rooms should get all the sun possible, while passages, offices, etc., may be relegated to the north. Choose a south aspect, and let the main front face this way, in order to ensure all the sun possible. There should be wings angled back from 25 deg. to 45 deg. The front door can either be at the end of one of these wings or at the back. But it is a mistake to devote to a front door and entrance hall (I do not speak of a sitting-room hall) any part of the sunny side of a house of limited size. The servants' hall should get sun. It is not fair to ask them to spend their leisure time in a sunless room. If there are children their nurseries and schoolroom should face south-east and south, as it is important they should get the morning sun.

There should be cellars under the whole house, or concrete basement with air space, and an air-chamber around it, but no servants' accommodation below the ground level.

All windows should reach up to the ceilings and should not come down lower than a few feet above the floor, though a French window may be allowed in those rooms which open on to the garden. A bay window is a very attractive feature in a room, and ensures the maximum amount of light and sunshine.

There should be a hot-water service apart from the kitchen fire, which in summer time need not be in daily use if there is a gas or electric cooking stove.

Plenty of bathroom accommodation is desirable, and there should be two baths for the family and one for the servants who should live in a wing apart from th family, with a separate staircase.

A bathroom should never actuall open into a bedroom. Steam from ho water and hot pipes is not healthy in bedroom or opening into a bedroom.

There should be plenty of space in th roof for store-room purposes, also t prevent bedrooms from being too hot i summer or too cold in winter. Passage and corridors should, as much as possible face north, and be heated with hot wate or hot air pipes. This would keep th house warm, and would enable an ope fireplace, in moderate-sized rooms, to b sufficient for heating and ventilating purposes.

For a house to spread out is more comfortable than to be built high, but als more expensive on account of digging foundations.

The hot-water cistern at the top of th house should be enclosed in a cupboar and placed on the floor, with shelves abov and around. This makes an admirabl linen cupboard and avoids all possibilit of damp sheets. Light should not b sacrificed to leaded panes of glass fo picturesque effect.

The dining-room should be placed within easy access of the kitchen. By mean of a small sliding panel in the dining-room wall, opening on to a passage (not direc into the kitchen), meals can be conveniently served.

There should be two larders, wel ventilated, one for milk and dairy produce the other for meat and poultry. Sufficien pantry room, with spacious china an glass cupboards, is very important; also room for brushing and drying clothes.

NEWS ITEMS.

Government Memorial Plaque Competition.

Five hundred competitors from all parts of the Empire have, it is stated, sent i designs for the memorial plaque which th Government propose to present to the nex of kin of all who have fallen in the war.

Cost of the Woolwich Housing Scheme

The expenditure on the Woolwich housing scheme by the Commissioners o Works amounted in the year ende March 31, 1917, to £14,666 2s. 5d., making the total expenditure on the scheme to tha date £821,326 19s. 4d.

Proposed New Shipyard for Wales.

A deputation from Newport, Mon., was received at the Admiralty last week on th subject of a scheme for the constructio of a large shipyard on the banks of th River Usk. The deputation was introduced by Mr. Lewis Haslam, member fo Monmouth, and after the scheme had bee discussed in detail the Admiralty official promised to give the matter careful consideration.

Sheffield Wages Award.

The wages dispute in the Sheffield building trade has been dealt with by the Committee on Production, who have issue their award. The award of the committee is that workmen concerned, o twenty-one years of age and over, who ar paid at plain rates, shall, as from th beginning of the first full pay week whic followed January 1, receive a bonus o 12½ per cent. on their earnings.

(*Continued on p.* xiii.)

NEWS ITEMS (*continued.*)

Women Making London's Gas.

Three out of the four retort houses of e South Metropolitan Gas Company are ing run entirely by women labour. Even e supervisors are women. This fact was lated at the half-yearly meeting of the mpany at Cannon Street Hotel by the airman, Dr. C. Carpenter.

thological Laboratory, Northampton.

The Board of Management of the North- npton General Hospital regretfully state at the building of the Pathological boratory has had to be postponed for e present. "Owing to the acute short- e of labour for work of the utmost gency" the Ministry of Munitions are able to grant a licence at the present ne, but suggest a further application in months' time "when the labour situa- on may perhaps be more favourable." ouncillor Edward Lewis, J.P., has gene- usly given £250 towards the under- king.

rd Leverhulme Buys the Isle of Lewis.

It is announced that arrangements have en completed for the purchase by Lord everhulme of the Isle of Lewis, which longed to Colonel Donald Matheson. he estate is entailed, and the purchase is bject to disentailment by the Scottish ourt of Session, a process which is re- rded as more or less formal. It is pro- sed to take over the property as at Whit nday next.

New Type of Concrete Boat.

The Cubitt Concrete Boat Building Com- ny have ready for launching at Chiswick concrete cargo boat of a new type. Dis- nsing with a timber frame and cast, the ncrete is moulded on sheets of expand- g metal to a thickness of $1\frac{3}{4}$ in., with nsiderable saving of weight. The boat, cluding engines and iron keel, is esti- ated to weigh $8\frac{1}{4}$ tons, little more than timber-built craft of the same size. The ngth is 40 ft., with $8\frac{1}{2}$ ft. beam and $4\frac{3}{4}$ ft. aught. She will carry 20 tons of cargo d a 25 h.p. motor is designed for a speed 7 knots.

akefield and District Master Builders' Association.

At the monthly meeting of this associa- on a letter was read from the Ministry Labour dealing with the establishment local advisory committees in connection ith the national system of employment changes, and suggesting the appoint- ent of a representative from the asso- ation on the committee. Mr. T. Craggs as nominated as the association's repre- ntative. The question of the suggested sue of a new regulation further restrict- g the carrying out of constructional and ecorative work was discussed, and a reso- tion was passed expressing disapproval any further restrictions being placed pon building in the carrying out of such ork.

COMPETITION.

School Buildings, Bolton.

The trustees of the Bolton School and ord Leverhulme invite preliminary de- igns in competition for new public school uildings for 500 boys and 500 girls, with hapel, assembly halls, library, science, rt and craft rooms, swimming bath, and ther accessories, which it is proposed to rect on a site adjoining Chorley New Road, Bolton, as soon as circumstances ermit. Mr. J. Bradshaw Gass, .R.I.B.A., and Mr. A. J. Hope, Licentiate R.I.B.A., have been appointed to act as professional assessors. Subject to conditions, premiums of 250 guineas, 150 guineas, and 100 guineas are offered; if a final competition is deemed necessary, each selected competitor will receive 50 guineas honorarium in addition to the premiums. Owing to the present condition of national affairs, no undertaking can be given as to commencing the building, and there is no obligation to proceed therewith. The conditions of competition specify the terms of appointment of architect. Conditions of competition and instructions to architects, with plan of site, can be had on or after February 23 on application to the assessors, Messrs. Bradshaw Gass and Hope, 19, Silverwell Street, Bolton. £1 1s. deposit to be made with application, which will be refunded if conditions are returned within one month or on receipt of competition plans in accordance with instructions.

TRADE AND CRAFT.

Tests of Armoured Fire-resisting Doors.

In many of the larger buildings in our cities it is necessary to build intervening walls to prevent the spread of fire. Openings are left in these walls to facilitate movement between the various portions of the buildings; and it is necessary that such openings should be protected by suitable fire-resisting doors. The members of the Glasgow Corporation Buildings Regulations Committee, accompanied by Mr. Thomas Nisbet (city engineer and master of works) and Mr. William Waddell (city firemaster) attended a special demonstration of armoured fire-resisting doors on the invitation of Messrs. Mather and Platt, Ltd., engineers, Manchester and Glasgow, and, through the courtesy of the Corporation, the test was conducted at the Statute Labour Depôt, Alexandra Parade, in a building specially constructed to the approval of the master of works. The test-shed measured 11 ft. by 5 ft. by 10 ft., and to an opening was attached an armoured fire-resisting door of the sliding pattern, 8 ft. 3 in. high by 7 ft. 6 in. wide, and this door was fixed on the inside of the building, with all hangers, etc., exposed to the flames to ensure the test being the severest. The shed was filled with a ton and a half of timber well soaked in paraffin to produce the intense and lasting heat required. The torch was applied to the pile at 11.15 a.m., and at the end of an hour Firemaster Waddell instructed his men to put the hose on the still flaming fire to allow of the door being cooled and an examination made. This showed how fully justified was the makers' confidence in the fire-resisting qualities of the door, and further showed the non-conductive properties of this type of door, as, although a temperature of 2,246 deg. Fahr. was registered inside the hut, a thermometer fixed on the outside of the door only registered 81 deg. Fahr. The method of construction of these armoured fire-resisting doors is interesting. They comprise three or four thicknesses (according to the area of opening) of well-seasoned pine boards, planed, tongued and grooved, and nailed together with wrought-iron nails, which are driven flush and clenched. They are completely covered with tinned-steel sheets, put on in such a manner that, whilst free to expand, they exclude the air and cannot become attached. By excluding the atmosphere from the wood, combustion is so greatly retarded that an exposure of several hours to the flames results usually in the timbers becoming partially carbonised only. The doors are suitable for the maximum size of openings allowed by the building regulations for openings in party walls within the jurisdiction of the Dean of Guild Court. An armoured fire-resisting door of this type is shown in the accompanying illustration, which is reproduced by the courtesy of the manufacturers, Messrs. Mather and Platt, Ltd.

COMING EVENTS.

WEDNESDAY, FEBRUARY 20.

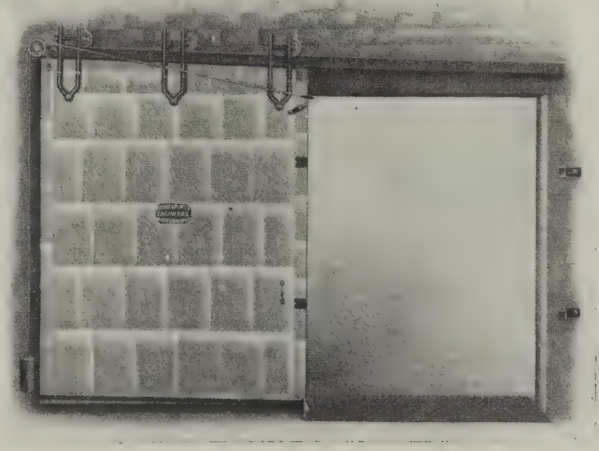
Royal Society of Arts.—Mr. Maurice B. Adams, F.R.I.B.A., on "Picturesque Architecture," at 4.30 p.m. Sir Aston Webb, K.C.V.O., C.B., R.A., will preside.

Edinburgh Architectural Association.—Mr. J. A. Williamson, A.R.I.B.A., on "The Tenement—must it continue to have a place in Scottish housing? If so, in what amended form of plan and layout?" at 8 p.m.

Carpenters' Hall.—Mr. Alan S. Walker on "Old Carpenters' Hall," at 7.15 p.m.

TUESDAY, FEBRUARY 26.

Illuminating Engineering Society.—Lt.-Commander Haydn T. Harrison, R.N.V.R., on "A Survey of Methods of Directing and Concentrating Light," at 5 p.m.



ARMOURED FIRE-RESISTING DOOR.

THE JOURNAL "WANTED" ADVERTISEMENT COLUMNS.

Appointments Wanted.

4 lines (about 28 words) 1s. 6d.; 3 insertions 3s.

ARCHITECTURAL Assistant, thoroughly experienced. Has served Articles. Young and exempt from further military service. With firm on Government works twelve months. Excellent testimonials. —Apply, T. W., "The Gables," Amberley, Glos.

BUILDER'S and Contractor's Manager requires position as either general or outside manager. Well up in all branches, and a thorough knowledge of the W.D. Schedule. Age 44, and a life abstainer.—Apply, N. H. T., "Leafmore," Victoria Avenue, Surbiton, Surrey.

BUILDER'S and Contractor's General Foreman requires re-engagement; practical and reliable in all branches of the trade; expert measurer; eighteen years in present situation.—A. F. 28, Aden Grove, N.16.

BUILDER'S Surveyor and Manager (experienced), open for part-time engagement, three or four days a week, on estimates, quantities, dilapidation, or air raid claims, etc.; over thirty years' first-class experience with large London building firm.—JX., 26, Charing Cross Road.

BUILDER'S and Contractor's General Manager requires position; well up in all kinds of work and trades; detail draughtsman, quantities, measuring; joiner by trade; Midlands preferred.—B. Palmer, 45, Crofton Park, Yeovil, Somerset.

FOREMAN Painter wants job; good colourman; long experience in all classes of work; age 43.—S. G. H., 52, Harold Road, Upton Park, E.13.

GENERAL or Working Foreman requires work; just finished large foundation job; oil and gas plant; used to all classes of building work; good references; age 56; trade, carpenter.—Riches, 115, Burges Road, East Ham, E.

MEASURING and Estimating Surveyor, or as Builder's Manager on Works, desires immediate engagement; thoroughly experienced; well up in Government contracts; over military age.—H. S. A., 79, St. Stephen's Road, Hounslow.

PAINTING and Distempering, etc., wanted; piecework or take charge.—S. T. Wright, 50, Clifton Street, Worship Street, E.C.2.

SHOP or Working Foreman of Joiners disengaged; quick and accurate setter-out, prompt timekeeper, good manager; total abstainer; highest references; ineligible.—L., 10, Gravel Road, Hanwell, W.7.

THE Association of Builders' Foremen and Clerks of Works, 56, Old Bailey, E.C.—Experienced Foremen and Clerks of Works can be obtained by applying to the Secretary, Mr. J. W. Sawyer, 214, Clapnam Road, S.W. Competent foremen and clerks of works are invited to join this Association.

WANTED.—Brickwork, Pointing, and Dipapidations; good references.—X., 14, Cambridge Street, Camberwell New Road, S.E.

WANTED.—Stairs, construction or alterations, and handrails continued, by T. Bradley, 64, Bellamy Street, Balham, S.W.12.

WOOD-WORKING Machinist (Spindle Hand) seeks engagement on Aircraft work; previous experience; take charge if necessary.—Machinist, 67, Kenlor Road, Tooting, S.W.

Miscellaneous.

6d. per line.

BOOKS.—Books on Building Trades, Engineering, Educational, Literary, Technical, and all other subjects; second-hand at half prices; new books at discount prices; catalogues free; state wants; books sent on approval; books bought; best prices given. W. and C. Foyle, 121-123, Charing Cross Road, London, W.C.

TO ARCHITECTS COMPETING SCHEMES AND ESTIMATES FOR ENGINEERING WORK

(Lighting, Heating, Ventilation, and Sanitation), and Architectural Metal Work, supplied free of charge of **STRODE AND CO., LTD.**, 48, Osnaburgh Street, London, N.W., and 18, Easy Row, Birmingham.

SECOND-HAND Optical Mart

For the Purchase and Sale of

LEVELS, THEODOLYTES, DRAWING INSTRS.—Clarkson's, 338, High Holborn, London, W.C. (Opposite Gray's Inn Road).

OLD Oak from Sussex Manor House and about 50 square feet of old Horsham stone slates.—Upper Woodcote Estate Office, Purley. 108

PAVEMENT and Floor Lights, in good condition, second-hand.—Particulars and prices apply W. B. Snell and Co., Treville Street, Plymouth. 111

Educational Announcements.

6d. per line.

R.I.B.A. EXAMINATIONS.

Special personal system of preparations by correspondence or private tuition, Bond and Batley (A. G. Bond, B.A., Oxon, A.R.I.B.A.), 96, Grosvenor Road, S.W. Tel. 7036 Victoria.

Appointments Vacant.

6d. per line.

CLERKS (Male) wanted, immediately, for Government work in London and on South Coast; applicants with experience in engineers' offices or the building trade preferred.—Applicants must be ineligible for general service, and should give full particulars and state salary required, Box D.W.M.N., 927, Willings, 125, Strand, W.C.2. 114

DRAUGHTSMAN (Civil and Mechanical) wanted, immediately, for Government work in London and on South Coast; applicants must be ineligible for general service and should give full particulars of their experience and qualifications, with references or copy of testimonials, and state salary required.—Box D.W.M.N., 926, Willings, 125, Strand, W.C.2. 112

PROFESSIONAL Gentleman wanted to write articles upon architectural perspective. One capable of preparing lessons on the subject.—Apply, stating qualifications, to the Bennett College, Sheffield. 103

SEWAGE Attendants wanted for Disposal Works at Aerodromes; wages, 30s. to 35s. a week, all time; men with experience of sterophagers or roto-plunge pumps preferred.—Apply, with testimonials, stating previous occupation and experience, and whether married or single, to Commanding Royal Engineer, York District, 12, Wenlock Terrace, York. 109

TYPISTS (Male) wanted, immediately, for Government work in London and on South Coast; applicants with experience in engineers' offices or the building trade preferred; applicants must be ineligible for general service, and should give full particulars of experience, stating speed and salary required, Box D.W.M.N., 928, Willings, 125, Strand, W.C.2. 113

WANTED, in Government Office, London, Clerks with experience in Builder's or Surveyor's Offices, and knowledge of building materials; good handwriting and accuracy in figures essential; must be ineligible for military service.—Apply, stating age, salary required, and enclosing copy testimonials, to Box 939, Willings, 125, Strand, London, W.C.2. 115

Competitions.

HOUSING OF THE WORKING CLASSES AFTER THE WAR.

The plans submitted in the Competition for Workmen's Cottages, promoted by the Local Government Board and the Royal Institute of British Architects, for the Northern Area, will be on view at the rooms of the Northern Architectural Association, No. 6, Higham Place, Newcastle-on-Tyne, from Monday, February 18th, to Saturday, February 23rd, inclusive, between the hours of 10 a.m. and 4 p.m. 110

THE BOLTON SCHOOL.

LORD LEVERHULME TRUST.

THE TRUSTEES OF THE BOLTON SCHOOL AND LORD LEVERHULME invite Architects to submit preliminary designs in Competition for NEW PUBLIC SCHOOL BUILDINGS for 500 boys and 500 girls, with Chapel, Assembly Halls, Library, Science, Art, and Craft Rooms, Swimming Bath, and other accessories, which it is proposed to erect on a site adjoining Chorley New Road, Bolton, as soon as circumstances permit.

Mr. John Bradshaw Gass, Fellow R.I.B.A., and Mr. Arthur John Hope, Licentiate R.I.B.A., have been appointed to act as Professional Assessors. Subject to conditions premiums of two hundred and fifty guineas, one hundred and fifty guineas, and one hundred guineas are offered. If a final competition is deemed necessary each selected competitor will receive fifty guineas honorarium in addition to the premiums. Owing to the present condition of national affairs, no undertaking can be given as to commencing the building and there is no obligation to proceed therewith. The conditions of Competition specify the terms of Appointment of Architect.

Conditions of Competition and Instructions to Architects, with plan of site, can be had on or after February 23 next on application to the Assessors, Messrs. Bradshaw Gas and Hope, 19, Silverwell Street, Bolton. One guinea deposit to be made with application, which will be refunded if Conditions are returned within one month or on receipt of Competition plans in accordance with instructions.

By Order,
J. R. Barlow, Chairman,
Hall & Son, Solicitors, Secretaries,
of the Trustees of the Bolton School.

January, 1918. 105

BCGA

WHEN PEACE COMES

A COMMON responsibility rests on every member of the professional and business world, each in his particular sphere of influence—the duty of encouraging enlightened practice in regard to fuel consumption.

When peace comes—and for long enough after—we shall have to pay for the War (and then to maintain our position among the nations) by increasing our output. Are our industries to be hampered scarce and dear coal?

If we go on burning crude coal at the present rate of consumption, Yes: for our reserves are by no means inexhaustible. But science points out that the common-sensible alternative is the use of gas, which not only saves coal for the nation, but also saves money for the manufacturer.

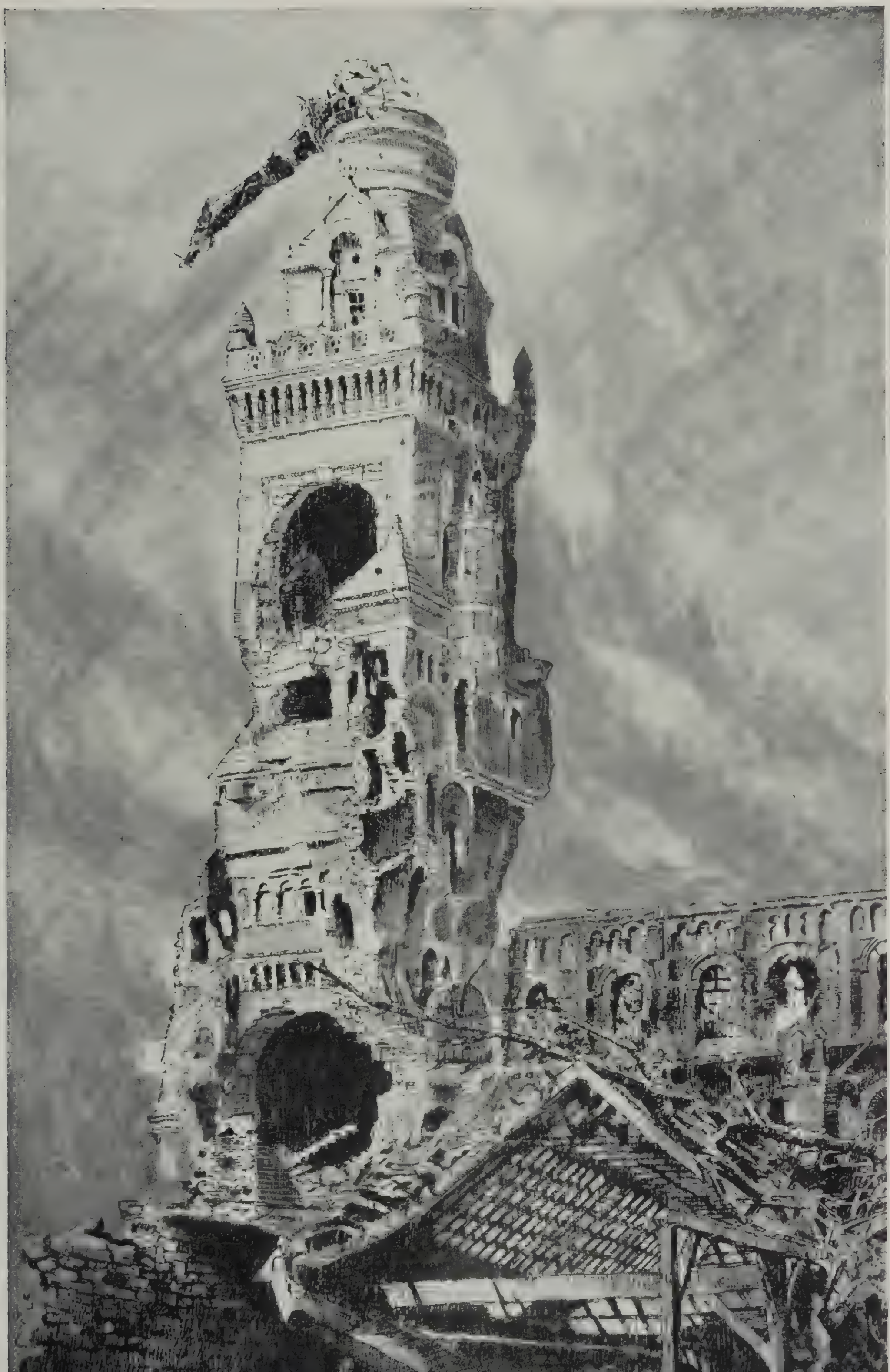
The special "Industrial Efficiency" numbers of "A Thousand and One Uses for Gas" prove this statement up to the hilt, and will be sent free of charge to any interested reader who applies to the address given below.

For further Information or
Specific Advice please apply to

THE BRITISH COMMERCIAL GAS ASSOCIATION

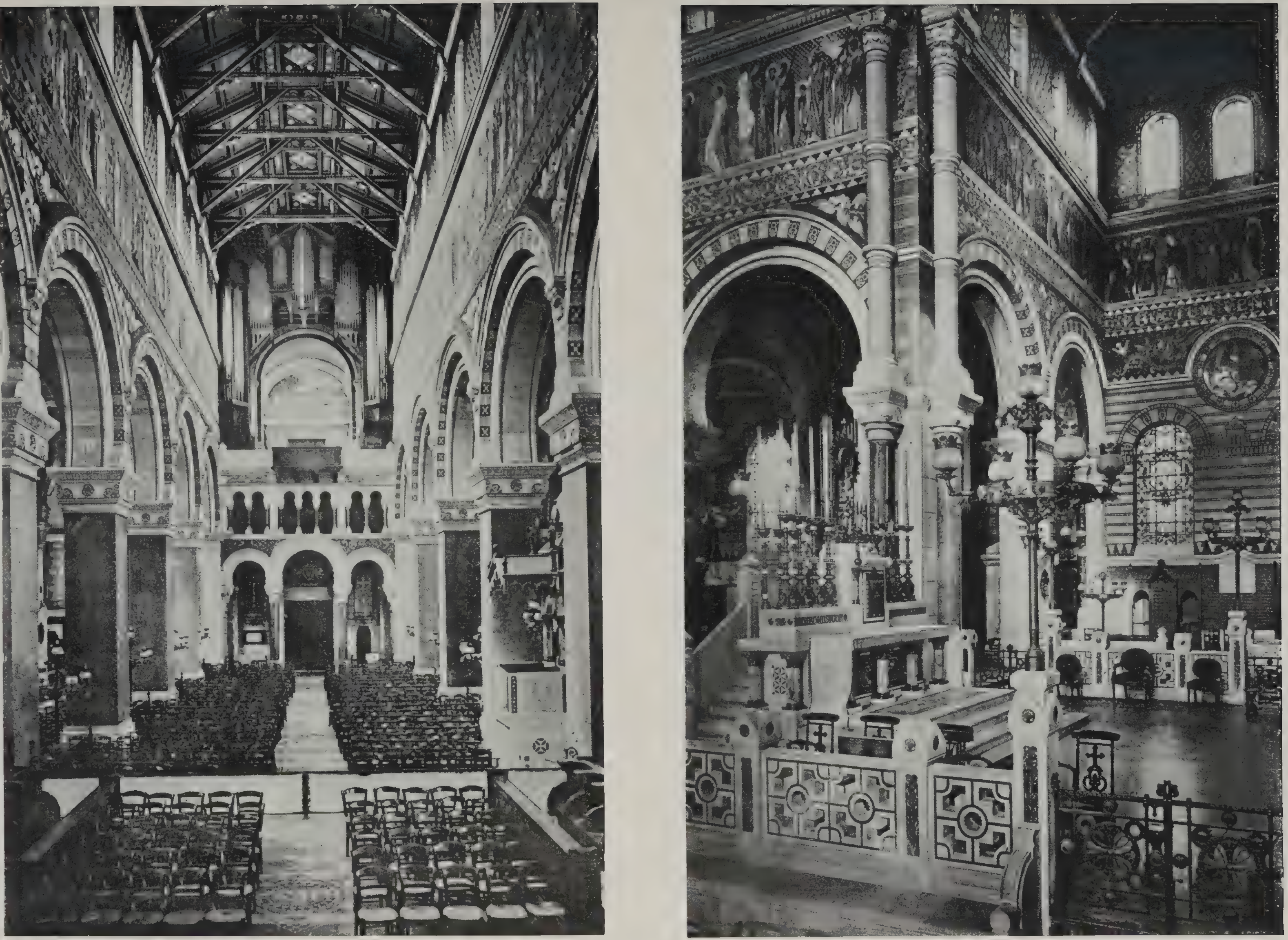
47, Victoria Street, Westminster, S.W.1

W112



ARCHITECTURAL DRAWINGS AND SKETCHES. XII.—THE RUINS OF THE CHURCH OF NOTRE-DAME DE BREBIERES, ALBERT.

FROM THE DRAWING BY ROBERT CROMIE, A.R.I B.A.

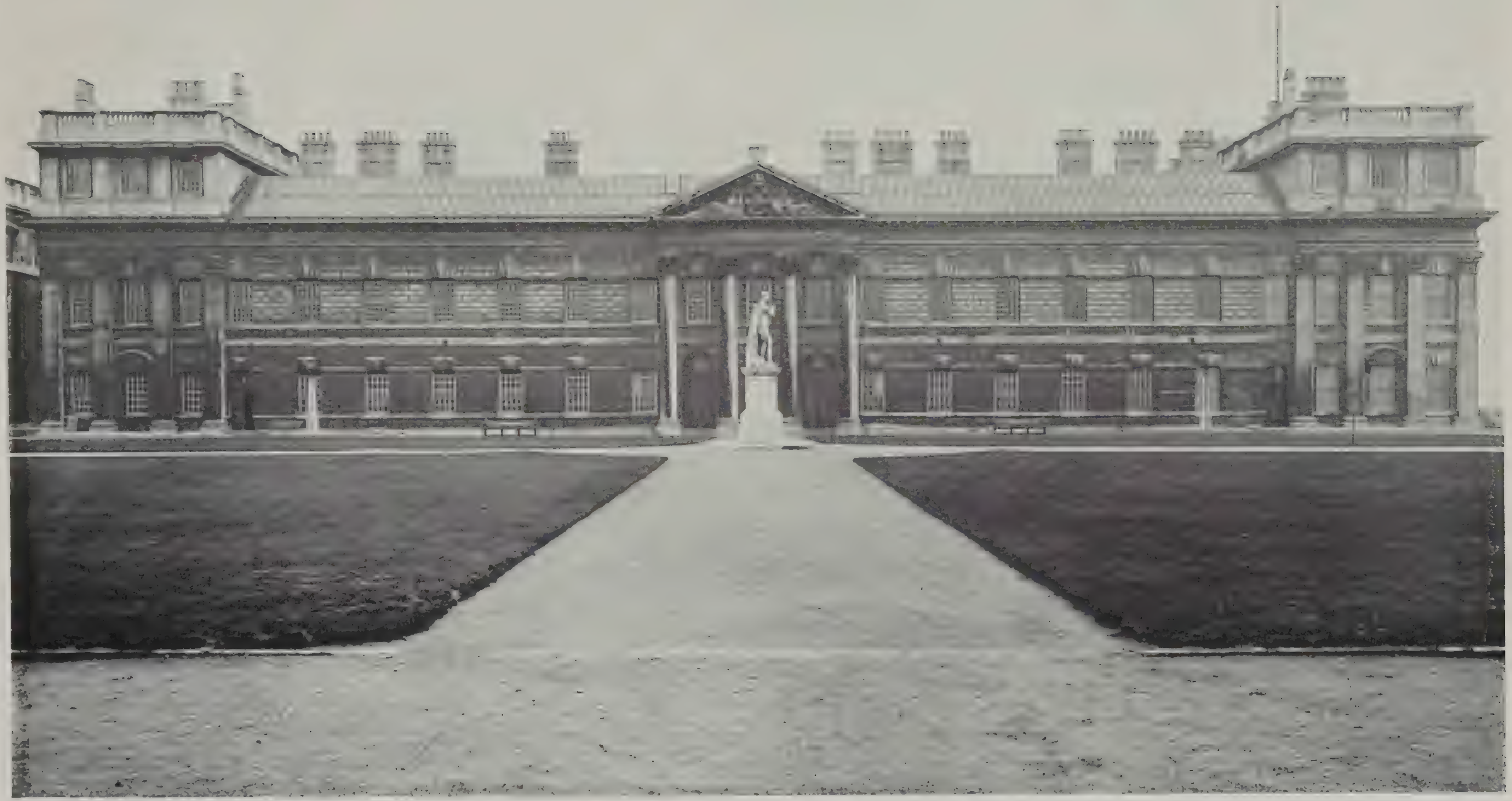


View in Nave.

Chancel.

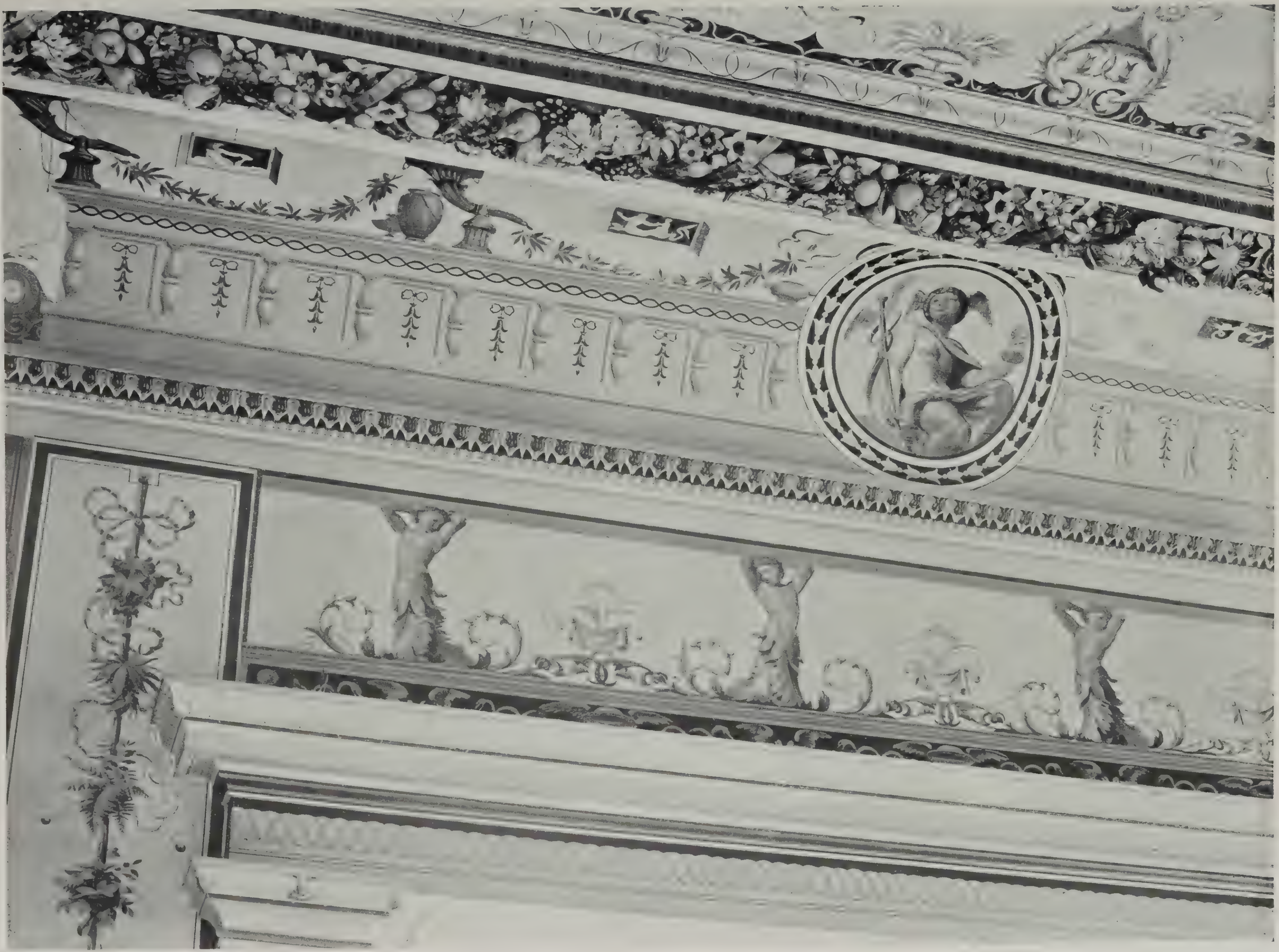
MODERN FRENCH ARCHITECTURE. XVI.—THE CHURCH OF NOTRE-DAME DE BREBIERES, ALBERT (DESTROYED BY THE GERMANS).

EDMUND DUTHOIT. ARCHITECT.



MONUMENTAL ARCHITECTURE (SERIES II.). XXXVIII.—KING CHARLES THE SECOND'S BLOCK, GREENWICH HOSPITAL.

JOHN WEBB, ARCHITECT (WITH SUPPOSED ASSISTANCE OF INIGO JONES.)

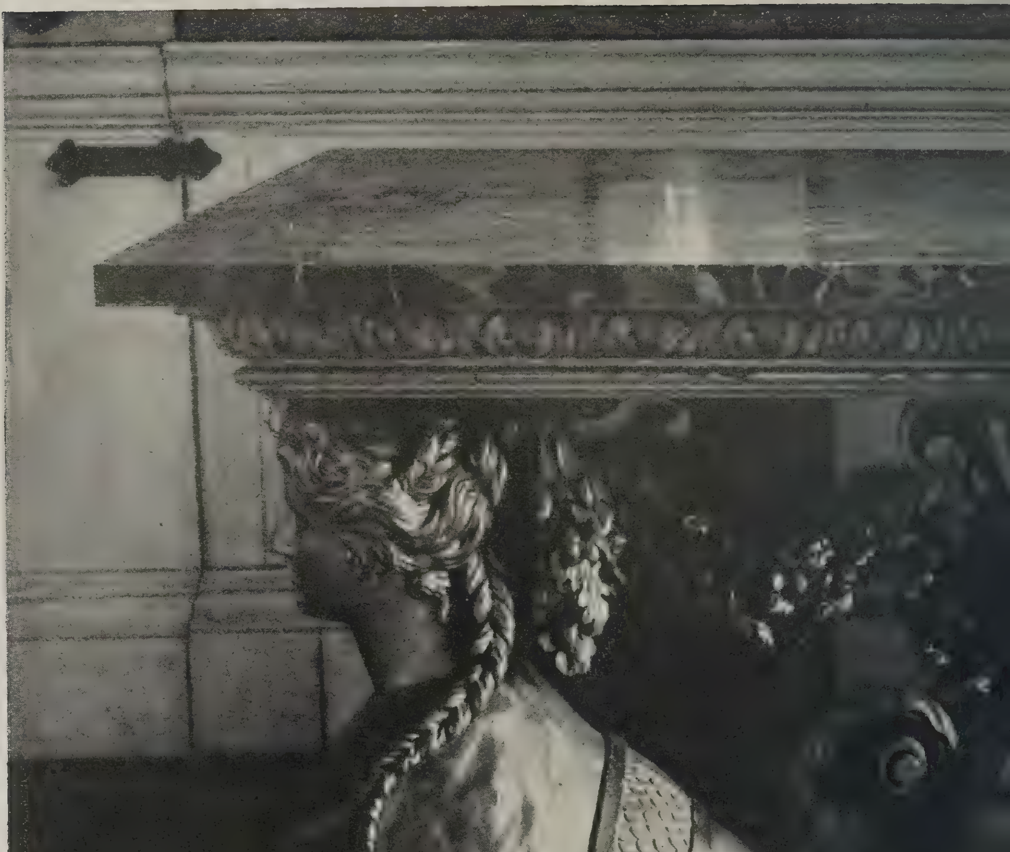


DETAILS OF CRAFTSMANSHIP (SERIES III.). XIV.—DETAIL OF DECORATION OVER OPENING IN LARGE DRAWING-ROOM, DEYSBROOK, NEAR LIVERPOOL.

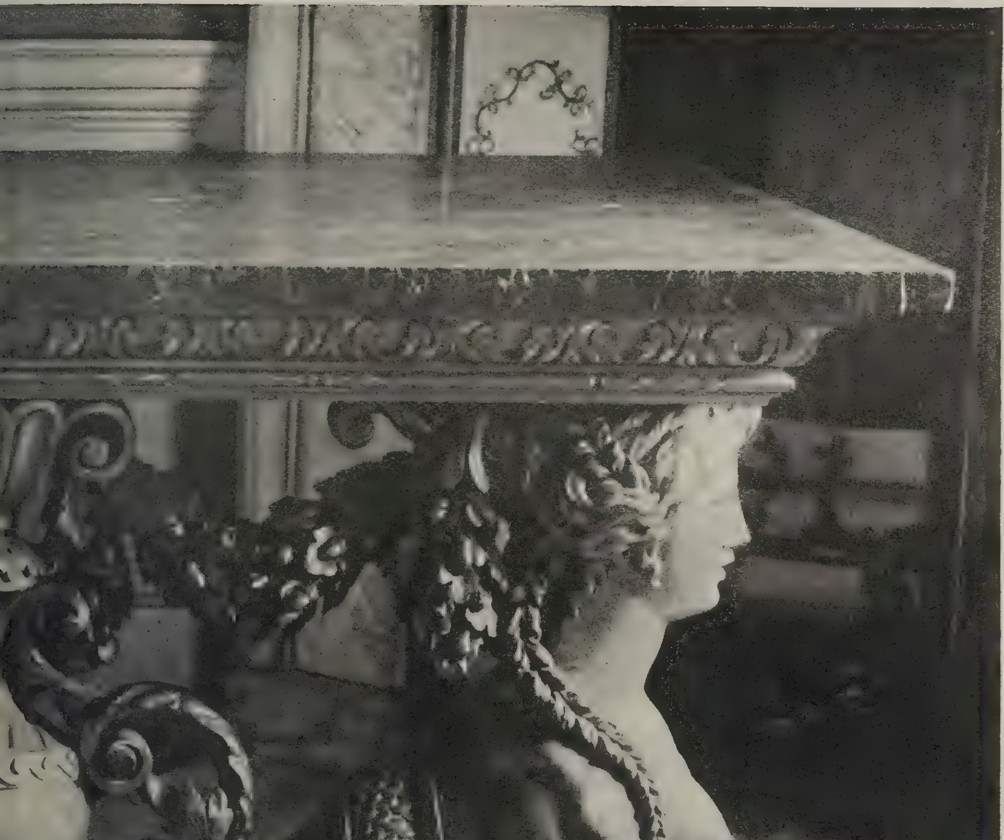
BY ALFRED STEVENS.

I R B

[illegible]
[illegible]



DETAILS OF CRAFTSMANSHIP (SERIES III.).



-SIDE TABLE, "DITCHLEY," OXFORDSHIRE.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

FEBRUARY 27, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1208.

MR. ERNEST NEWTON, A.R.A., is to be this
year's Royal Gold Medallist. The honour
could not have been better bestowed. Mr.
ewton has at least a threefold qualification for the
reatest distinction that the Institute can confer. His
ork is remarkable for its delicacy, purity, and refine-
ent; his services to the Institute and to the State
war-time are beyond praise; and no man enjoys a
rger share of the confidence and esteem of the entire
rofession. Mr. Newton, who was born in 1856, was
lucated at Blackheath and at Uppingham. In 1873
was articled to Norman Shaw, R.A., and after
rving six years in Shaw's office began practice on
s own account. His success in producing domestic
esigns of extraordinary grace and suavity has re-
ilted in his energies being largely confined to that
ass of work, in which he has many close imitators
ut no rivals. He has, however, at least one
ne church to his credit—that of St. Swithun,
ither Green—and he designed a House of
etreat and chapel for the Sisters of Bethany.
mong his principal works are—Bullers Wood,
hislehurst; Redcourt, Haslemere; Steep Hill.
ersey; Glebelands, Wokingham; Ardenrun Place,
lindley Heath; Burgh Heath; and Kings-
ood Warren. His elevations have an air of
landly courteous invitation, of which the promise is
ilfilled by the refinement of his interiors. Both
ualities are the admiration and despair of his many
isciples; for beyond all his contemporaries he is,
r domestic work, the "architect's architect."

* * * *

Mr. Thomas Foster, Fellow of the Institute of
ritish Decorators, and treasurer of the National
ssociation of Master House Painters of England
nd Wales, has published in handy pamphlet form the
ıbstance of an article in which he set forth, in this
ournal, his ideas on the relationship of capital and
bour. He recalls that the outbreak of the great
ar suspended temporarily labour troubles that were
en wearing a most serious aspect. A general strike
railway workers, which would probably have been
ined by other labour federations, was threatened,
nd the London building strike or lock-out was about
become general. Concessions and agreements
emed alike useless. Apparently the concessions
ere given grudgingly and received ungraciously,
hile the agreements, often the fruit of long negotia-
ons, were ruthlessly and capriciously broken by the
orkers as soon as made, the unionist rank and file
pudiating the action and the guidance of their
aders. It was this exasperating repudiation (by the
orkers) of the binding principle in collective bargain-
g that led the National Federation to proclaim a
ational lock-out. It seemed necessary to take some
rastic step to put an end to anarchy; and the
dmittedly crude and barbarous expedient of the lock-
ut happened to be the only available resource. That
e had got no farther forth than all this implies was
onstructive indictment of our industrial system.

* * * *

Mr. Foster is inclined to challenge "the permanent
ypothesis"—the assumption that the only conceiv-
ble basis of remuneration for the operative is that of
e wage system. He believes it possible to put the
lations of employer and employee upon a more
uitable basis—to lay less stress on the "cash nexus,"
nd more on the common humanity of employer and
employee. He seems to regard as fundamental fallacies the prevailing notions that the employer is in business solely for what he can get out of it in the shape of cash profit, and that the worker is in it to do as little as he can in return for the scanty wage which, barely sufficing for his necessities, leaves him no margin for living in the larger sense. On the one hand we get systematic exploitation, on the other sullen resistance. Hence there is bitter antagonism where there might be friendly co-operation, and the only wonder is that the strife arising from such a situation is not more frequent and more deadly. These conditions are not natural. With most employers and with the great majority of the employed, they go against the grain. They are the effects of an artificial system that, since it is attended by these grave disadvantages and drawbacks, is obviously in need of revision. If the industrial system has reached its final and unalterable shape it is unique among human institutions. Nay, more; if it is incapable of growth and development, it is already moribund.

* * * *

Mr. Foster suggests that existing organisations of employers and operatives shall form the nucleus of a better future organisation, and he prescribes a complete change of function for them. In the first place, all—employers as well as employed—are to be compelled by legal enactment to join their respective trade unions—a proposal that, before the war had shown us some peculiar virtues of compulsion, would have been hailed with ridicule if not with execration. In the same spirit is the proposal that agreements between the organising and operative sections shall have the binding force of law. As a matter of pure principle both steps would seem to be fairly equitable, however much they may seem to some minds to violate the sanctity of "the liberty of the subject"—a fine full-mouthed phrase that will seldom bear analysis. No subject has either moral or legal right to exercise his own "liberty" at the expense of his fellows. It is by abuse of such "liberty" that a mean employer takes an unfair advantage of his more generous competitor by remaining outside the employers' association while enjoying the fruits of its effort and expenditure, and by undercutting them because he can evade the standard payment and conditions of labour. Similarly the "free labourer" defrauds the unionist. On a fair view of the situation, all these gentry should be made to toe the line—to play fair or to give up the game; and the same observation has its bearing on the registration question. If compulsory membership of trade-unionism is feasible, compulsory registration of architects is not less so. With this side-issue, however, Mr. Foster has nothing to do. His constructive proposals relate mainly to the trade in which he is an employer, and he states that an organisation on the Whitley model was actually at work in the decorating trade before the Whitley Report was signed, and was based, like the Whitley recommendations, on a memorandum prepared by Mr. Malcolm Sparkes, an employer in the London building trade.

* * * *

In Mr. Foster's pamphlet it is stated that the National Painters and Decorators Council was formed back in February, 1917, "to promote the continuous and progressive improvement of the industry, to realise its organic unity as a great national service, and to advance the well-being of all connected with it." Its comprehensive programme included "the regularisation of (real) wages throughout the country; the prevention of unemployment by the better organisation of the industry; the employment of disabled soldiers; technical training and research; apprenticeship; the general improvement and development of the industry." That these are, one and all, excellent objects or aspirations, few will have the hardihood to dispute. How, and to what extent, to give them effect is the real problem; and despair of its solution is confined to pessimists and reactionaries, who will not lack the energetic support of those who have a selfish interest in keeping things as they are. Matters have gone too far, however, for a policy of active or passive resistance to be of much avail; and, as George Stephenson said, it is bad for the "coo" to butt at the locomotive. And, as Mr. Foster shows, the engines of progress are already signalled. There is, for example, the Builders' Parliament, of which the aims are very clearly set out in a special article by Mr. A. G. White in the new issue of "Specification." Mr. White reminds us that work under war conditions has been a revelation of the possibilities of output, which has probably opened the eyes both of employers and workmen to the dangers of keeping down wages, on the one hand, and restricting output on the other: and he clinches this remark with the deduction that "It can now be seen that it is the unit cost of the product that matters, not the rate of wages paid, and that it is possible, as had been proved previously in America, to have a high rate of wages along with a low unit cost of output." Although this is a consideration of vital importance, concentration on it to the neglect of more spiritual matters would falsify the issue. What labour wants is a clearer recognition of manhood and fellowship, of the right to live as well as to labour. The worker wants, in short, what a very able philosopher and economist has called "equality of consideration." That he will ultimately get it there can be no doubt; and it is no less curious and gratifying that he is receiving his chief help in the effort from members of the building industry. Mr. Sparkes has been mentioned. Mr. Foster may be bracketed with him; and, as a correspondent opportunely reminds us, Mr. A. J. Penty, architect, is in the van of the new movement; from which, we venture to suggest, the R.I.B.A. should not hold itself austerely aloof.

* * * *

Under the rather ambiguous headline, "Cost of Building After the War," a correspondent of the "Land Agents' Record" states what it cost him to build a pair of cottages for agricultural labourers on an estate in North Nottinghamshire during the war. Competitive tenders were invited, and the lowest tender received was for £641 16s. Ultimately, the total cost, including a few extras, such as fencing off the site and laying on the water, came to £667 12s. 6d. Dimensions and other particulars are wanting, but it is not difficult to visualise mentally "a good-sized living-room (or kitchen), scullery, coals, larder, and e.c., and three bedrooms, each with a fireplace." Before the war the same cottages were estimated to cost £425, so that the increase amounts, roughly, to nearly 60 per cent. Considering the difficulties of obtaining labour and materials, it may be pretty safely assumed that the builder did not wax wealthy on the profits. This instance, interesting as it is as an example of actual war-time experience in the revival of the almost forgotten craft of cottage building, affords no very clear indication of what such building will cost when the war is over, for that is what we understand the heading to imply; although, on a point of precision, it might be justly argued that "after the war" may mean
either after the war has begun or after the war
ceased. Such quibbling, however, may be left
the lawyers, to whom it is meat and drink, while
other men it is poison. Our point is that
Nottinghamshire example is no criterion of the
of building to be executed after peace shall h
been proclaimed, when the rush for materials
send up prices to a phenomenal height, unless
demobilisation of these commodities is control
until the supply becomes normal and sufficient.

THE PLATES.

An Old Cabinet.

THIS cabinet is of walnut, and is 6 ft. high, 4
wide, and 2 ft. deep. Apparently at some
date the base mould has been made to draw
The quartered panels and bolection mouldings
extremely fine; the latter have forty-two inches
each panel. The panelling at sides, though not
elaborate, is beautifully carried out; the mouldi
throughout are of splendid design, minute memb
being contrasted against large plain surfaces.
cornice breaks forward a bare eighth, and m
have offered a tremendous test to the craftsm
responsible for the mitreing. The hinges have
plates, pierced, engraved, and damascened. In
there are many drawers surrounding a smaller
of doors. These are mitre margined and quarte
in veneer, with a central star inlaid in other wo
These doors open into a little inner sanctuary, ag
with more drawers. The carving is free and swi
and the acanthus filling little angles left by
pointed panels looks as if carried out by a man
had not yet lost the Gothic tradition; yet the mou
ings and workmanship generally are quite won
ful. It is suggested that the piece is Flemish w
of the seventeenth century. So far as its histor
concerned, it belonged at one time to Mr. Edw
Poutet, who, the owner of a tobacconist's shop
Pall Mall, was a collector of old furniture.
Poutet's brother was the Housekeeper of Bucki
ham Palace. At his death the cabinet was bought
Lord Derby and given to Lord Sackville Cecil.
is in excellent condition.

Detail of a French Screen.

The oak screen of which a part is shown on
of the supplements in this issue is said to have c
from the chapel of a church in Pontoise. Of the
period, it is carved in openwork, with scroll
bands and leaves symmetrically arranged.
original is now in the Victoria and Albert Museu

A Drawing of St. Peter's, Rome.

This fine drawing, by Louis Haghe, is signed
dated 1864. The original, a water-colour, is no
the Victoria and Albert Museum.

The Domes and Colonnades, Greenwich Hosp

The funds with which Greenwich Hospital
built were raised in many curious ways.
included a duty of 6d. on every mariner in 16
fines for smuggling in 1699, amounting to £19,5
£6,472 1s., produced by the sale of the effects
Captain Kidd, the pirate; £600, the product o
State lottery in 1699; the sum of £2,000 per ann
granted by the King in 1695, and a grant of land
William III. in 1698. Wren gave his fees
architect in lieu of a subscription.

An American Domestic Interior.

Mr. Charles A. Platt is perhaps the most success
of American domestic architects. Possessing m
of the qualities of our own "Georgian" style,
work yet has a distinct individuality of its o
The interior, shown on the double-page suppleme
is a typically refined and dignified design.

HERE AND THERE.

THE periodical to which I referred last week, "Somerset House," was about the same size and shape as "Notes and Queries," and may ossibly have suggested the form and contents of iat engaging print. I treasure the first volume of Somerset House," for it holds much that is quaint id curious. Rather than be accused of any rm of the heinous crime of hoarding, I seize is occasion to share some of this pabulum. A ast amount of useful and interesting matter buried in old periodicals, as the late Sir aurence Gomme proved when he made so any interesting volumes out of pickings from ie "Gentleman's Magazine."

* * * *

To-day, Somerset House is in some peril of being ver-praised. One has heard it described as "the iest building in London, if not in Europe." That as by no means the popular opinion of it at the date its completion, when a nonsensical and withal rather piteful attack on it by one "Anthony Pasquin" was rateful and comforting to a public scandalised at hat was regarded as wanton extravagance in putting p a grand new building in place of an old one for hich a violent affection was discovered on the emolition. This pasquinade is so extraordinary, and, think, so little known, as to be worth reproducing s a curiosity of architectural, or unarchitectural, seudo-criticism. I am compelled, however, to make few unimportant excisions.

* * * *

"The cunning projector of this undefinable mass," rites the egregious Pasquin, "has been occasionally debted to the pure designs which Inigo Jones innded as a continuation to Whitehall, but which were ever carried into effect. . . . These superb bits ppear among the other parts of the pile like elegant dividuals in debasing company. This surprising, upendous, and extraordinary heap of stones was alled into order by the magic voice of that pineapple knighthood, Sir William Chambers, at the command the great and sapient council of this realm, in 1774. occupies a space of 500 feet in depth and 800 in idth, and is altogether an astonishing assemblage of ontradictory objects. The entrance, or Atrium, is o inappropriate that it looks like the narrow mouth of conomy, through which we grope our passage to the ast stomach of national ruin. The arcade is borrowed om the Strada della Dora Grossa at Turin.

* * * *

"At the termination of the vestibule is a large onze statue of the King, who seems placed there r no other purpose but to take cognisance of the xits and entrances of the clerks and watchmen, as if e kept a day-book to check their time. . . . . From what source of information (as nature is enrely out of the question) the gentle knight has drawn s Caryatides I know not. They are, generally peaking, piscatory monsters, more terrific and unenial than any Horace deprecated, or that ever itered the perturbed imagination of sleeping youth. he males have long flowing hair, with large crabs id lobsters creeping through their ragged locks. This a very delightful thought, and perfectly original, as conveys a lively idea of marine *pediculi*. The dies have a peculiar sort of headdress, made up of ead salmon, lampreys, seaweed, and other aquatic arieties, like so many distracted mermaids. . . .

* * * *

"That part of this inconsistent lapidific accumulaon which is appropriated to the polite arts is admitted be unexceptionable. The principal room, dedicated to the purposes of lectureship and the annual exhibition, cannot be approached but by a spiral staircase as high as Jacob's ladder: which (luckily for the lecturer and the exhibitors) turns the head of the visitors before they can either hear or examine. . . . . The names of the sculptors who were employed in the decoration of the exterior are Carlini, Wilton, Geracci, Nollekens, and Bacon. I have chronicled them as sculptors, not statuaries, as neither appear to have cut a figure in this business.

* * * *

"On the top of the corps de logis, or central part of this heterogeneous association of stones, we see a dirty black lump, which he calls a dome, and which is apparently stolen from the worst embellishments of that worst of architects, Sir John Vanbrugh. It furnishes me with no other idea but an inverted punch-bowl, and peradventure might be intended by Sir William as a durable symbol of sobriety, to operate on the senses of the clerks, to keep them from tippling in the hours of duty.

* * * *

"It appears to me, from consequences, that any thing can make an architect as well as a taylor! Yet a cock-sparrow in his nest would beat them all, if security is eminently essential to the continuance of the structure. This splendid knight of Poland, in his eagerness to have his buildings replete with taste, forgot that it was expedient they should have strength also. The terrace of this magnificent jumble, which was so unfeelingly cut out of the muddy sides of the venerable Thames, was the pride of his heart; but, alas! as it is decreed that pride shall have a fall, it should not create surprise that the proud eminence, like Burke's slippery Whigs, seceded from the parental pile and fell ingloriously in the dirt! The subterraneous apartments, it must be acknowledged, have every recommendation but light. It strikes me that they must have been perverted by accident or necessity from the original design by Sir William Chambers, who assuredly built them in imitation of some classic coal-holes. In these damp, black, and comfortless recesses, the clerks of the nation grope about like moles, immersed in Tartarean gloom, and stamp, sign, examine, indite, doze, and swear, as unconscious of the revolving sun as so many miserable demons of romance. . . .

* * * *

"The keystones of the arches are wonderfully carved in alto-relievo, with colossal masks of the Ocean, and the rivers of Britain, among which the Thames looks peculiarly sulky, as not having forgot or forgave the irruptions made upon his filthy domains by this saucy edifice. . . . This confederacy of alien attributes are like so many enemies compelled to elbow each other in a mob; they seem to curse mutually in the moment of embracing; it is a racemation or cluster of antipathies, made of recrementitious parts—an untimely exposition of bruised and battered stones, torn from the bowels of the peaceful quarry; here are pillars and pilasters unconnected with order, chambers and avenues without usefulness. . . ."

* * * *

This amusing farrago was no doubt taken seriously by many persons besides the editor of "Somerset House," who, in reproducing it, in 1828, some thirty years after its original publication in pamphlet form, solemnly refuted its every item—a performance even more ridiculous than that of the egregious "Anthony Pasquin."

DIOGENES.

MR. CHARLES T. RUTHEN, F.R.I.B.A.

H. M. FIRST COMMISSIONER OF WORKS (the Right Hon. Sir Alfred Mond, Bart., M.P.) has recently appointed Mr. Charles T. Ruthen, F.R.I.B.A., to the highly important and responsible position of Deputy-Controller of Accommodation and Chief Inspector to the War Cabinet Committee on Accommodation.

Mr. Ruthen was in February last year appointed one of two inspectors to inquire into and report upon the use being made by Government Departments of their office accommodation, and in association with his colleague (Sir Leonard Powell) has inspected a large number of the premises occupied by the great war departments, and has issued to the committee over fifty exhaustive reports.

MR. CHARLES T. RUTHEN, F.R.I.B.A,, DEPUTY-CONTROLLER OF ACCOMMODATION, ETC.

The immediate result of the investigation has been the laying down of certain well-defined and sound principles governing the utilisation of office areas, and the consequent enormous saving in area, improved distribution, grouping and allocation of staffs, as well as a marked improvement in control and efficiency.

Mr. Ruthen, after the issue of the first series of reports, was called upon to give evidence before a special Commission formed for the purpose of inquiring into the staffing of War Departments.

Mr. Ruthen was articled to Mr. Matthew Hall, of South Shields, and, shortly after completing his articles, obtained an appointment under the municipal authority of Swansea. He soon realised, howe that public service had its limitations, and at the a of twenty-five commenced practice in Swansea up his own account. Work came abundantly, and he h designed many of the principal buildings in mode Swansea, among which may be mentioned the Ho Cameron, Pantygwydir Baptist Chapel, the Carlt Theatre and Restaurant, New Exchange Buildin Mond Buildings, and many others.

He has taken for many years an active share the public life of South Wales and was for so time a member of the Swansea Borough Council a a member of the Harbour Board. He is honora treasurer of the Welsh Housing and Developme Association, and has devoted much time to the housi question in Wales; many articles having appear from time to time from his pen in periodicals a newspapers upon housing and town-planning su jects.

The duties of his new office require the employm not only of great technical ability and experience, b of tact and firmness, the possession of which qualiti during the past twelve months has made it possib for enormous savings to be effected for the benefit the State. These services, it is only fair to mentio are entirely honorary, and are thus rendered in t purely patriotic spirit in which the R.I.B.A. placed organisation at the disposal of the Government.

PREPARING FOR PEACE. IV.—ELIMINATION OF WASTE.

BY C. H. B. QUENNELL, F.R.I.B.A.

this series of articles the first was devoted to the cardinal importance of a real measure of education, the second to the necessity of increasing duction, and the third to the chances of success in ing the problem of labour unrest on the lines of Whitley Report. The subject of this, the fourth, limination of Waste," goes hand in hand with the ond, "Increasing Production," and, like all the er questions with which we are confronted, is ged around with difficulties.

; will mean the elimination of the individual who vastefully employed, and peacefully persuading , and training him, to take up more productive ployment. This may well prove entertaining, ause very few people are as docile or unprotected rchitects. Few follow our example of stretching k to knife. In the times of stress to come the ury trades may be expected to put up a good fight, d by all our inclinations to our own particular self-ilgence. All that numerous and consequential in between producer and consumer will discover absolutely essential they are to us all, and we may e to assist their third sinkings by brickbats hurled n the banks.

he task will be rendered more difficult because it lean against the national motto of "Laisser faire" the inclination of the politician to cure all our ills more legislative poultices. But it most certainly have to be done.

, as all the economists assure us, it is necessary to ease production so that we may have the where-ial to exchange the goods we make for the goods want, then it follows that if we can still further ease our production by the elimination of wasteful itutions, individuals, or processes, it will be to the mon interest to do so. We must produce wealth.

he problem which confronts the social reformer at moment is much the same as that tackled by the ineer, except that the latter deals with power ead. Take the internal-combustion engine of a or for an example, and assume that it is of the -stroke variety. The designer's first endeavour y the induction, compression, ignition, and exhaus- of petrol, drawn from the carburettor to nder, to generate power. The next consideration conserve the same and eliminate all waste in the smission to the wheels by way of gear box, shaft, differential. We do not find that a Rolls-Royce, r generating power in a wonderful engine, inter-es between it and the work to be done a gear box ch eats up most of the energy.

he position in which the nation is likely to find lf after the war will be such that it will be to the mon interest of us all not to play the part of the ective gear box, but do all we can to expedite ters. Builders are so essential, and their work is o much value to the community, that we ourselves t see that we are not hampered by avoidable te.

factor which may help in this direction is the n of industrial self-government which it is hoped Whitley Report may lead to. This can only be ctive with fully organised trades; these latter will the way, and if the work done is successful, then may expect that the badly organised trades (like itecture) will follow suit and come into line. The le point of Malcolm Sparkes's idea, which the itley Report embodies, is that all the men must their trade union and all the masters their fede-on and then govern their own industry. As the alternative is anarchy or bureaucratic interference, the idea must be given a trial.

Such a problem as the underlying fear contained in Mr. Wells's resolution put before a recent R.I.B.A., that State control of the building industry will continue after the war, would be a fitting subject for discussion by an industrial council on the Whitley lines.

The first test of this principle must be when the men are asked to forgo some of the privileges they have won in the past, to increase their production and agree to some measure of dilution. The dilutees will join the trade unions and increase their strength, uniting in a demand that if privileges are forgone concessions must be made. The workers are already assured of a larger share of the proceeds of their industry, but it is to be expected that if they fall in with the scheme and work all out to produce wealth they will want to have some say, not only as to conditions of labour, but the details of its management.

Trade unionism may be a mighty mean thing, but, alternatively, if our ideals are high enough, it may be an ennobling thing. Keep it down to the bed-rock of quarrels about pence and it is mean; let it concern itself with education, right living, and good work and it may render social service of the greatest value.

The point about these truisms, though, is that we may expect Labour, when it takes its share in management, to see that waste is eliminated. The defective gear box will go. The workman will quite rightly remind us, as Adam Smith did at the end of the eighteenth century, of the fundamental importance of labour. Labour of all sorts—that of architects even included—both may be expected to address pointed inquiries to both individuals and institutions: Now where do you come in? And it is going to be extraordinarily interesting listening to the answers.

We must keep away from the wild men; the out-and-out Tory is quite as dangerous as the Syndicalist. As to what possible concern this can have with the building trade surely the first thing to do is to respond to the very clearly indicated tendency towards combination, so that we are not left out in the cold, and, so far as architects are concerned, to carry on propaganda explaining our work to the public. We believe that we can render service, and only ask to be allowed to do so. It is monstrous if the winners of the L.G.B. Cottage Competition, conducted by the R.I.B.A., are paid outright for their designs and not allowed to carry out the same. The cottage as the unit of the scheme is the least important part of it. The community needs the service of the architects who designed to carry out, so that progression may be made. Standardising the cottage means standing still and stagnation. All of which, of course, the Institute should have pointed out. But consider the position. *With a good cause*, and the driving power behind it of the Industrial Council of the building trade, even the British public would have to sit up and take notice. And our sympathies are really with John Bull: he, poor fellow, is rather like an elephant assailed in the hinterlands by an angry mob of reformers armed with copper-sticks. He occasionally sits down in desperation, and one or two reformers go. The wrong method. We must try fair words and buns.

Once we can gain general recognition of the fact that building do not grow like Topsy, but need some control in their setting out, the rest of the problem may be left to the trade.

We need what all the rest of the community needs—an improved system of dealing, transferring, and holding of land. As all the political parties seem to be agreed as to this, great developments may be expected in this direction. One hears loose talk of revolution—we are threatened with one weekly—when things do not go just as the extremists want them to: yet the tremendous fact that landowners at the moment are being told to plough up land passes with little comment. Imagine the uproar if in 1913 some really crusted old Tory had been told to plough up his land; yet he is doing it now with great content and as a service to the community. It is conceivable that the habit may remain, and if he is treated fairly the landowner will not be less patriotic than the workman. This ploughing up of land to meet the common need is of far-reaching consequence in that it is an admission that a man holds land for service rendered and does not own it. It jumps us back to the times before the eighteenth year of Edward I. (1290), when the same conditions obtained, and is a finer conception than that of absolute ownership.

If the spirit of the Whitley Report is acted on, and men and masters come together, and, as the interested parties, manage their own affairs, local jealousies between firms in the same trade will tend to disappear. All the masters and all the men of the whole trade will take a broader view of its possibilities than one particular employer and his employees. Combination will tend to co-operation and the purchase of raw materials and disposal of resulting goods on a large scale. Great economies may be looked for in this direction, and the elimination of waste will leave a larger margin for profits and their enjoyment.

Such a state of affairs at first sight appears to be dangerous in that, on the one hand, it might tend to slackness by the elimination of competition in the trade itself, or, alternatively, be a danger to the community at the mercy of highly organised industry. So far as the first is concerned, competition in the past has mainly been concerned in an endeavour to hamstring one's commercial opponent, and the undercutting and underselling has been responsible for an appalling lowering of the standard of values all round. This sort of competition may well go. If instead, by combination and co-operation, we can induce a stronger flow of energy in the creation of wealth, and interest far more people in doing so, we may expect healthy rivalry and a general raising of value and an appreciation of what it means.

As to the second danger, of one organised trade preying on its fellows, it will follow naturally that a League of Trades will settle the rate of exchange between its members. If the war has made one thing clear it is the fact that prices are not of much importance. Money, gold, and all the paraphernalia of the banker are so much camouflage of the central fact that wealth is the creation of goods which you can exchange for other necessaries. If the butcher charges the baker too much for his meat, the latter raises the price he charges for his bread, and so on. We have been doing this for a long time now, and are only just beginning to find out that it is the commodity which counts.

Now all this may seem remote and of little concern to us. Some of us have got our tails down badly; like animalculæ, we are splashed along in some enormous stream vanishing we know not where. Many men have been rendered doubly despondent by the fact that in times of stress there seemed little place for the constructor, yet this was to be expected.

War is waste and destruction: an awful necessity now to right wrong and enable men to be free.

It must inevitably be followed by construction—not reconstruction, which is an abominable word—and an opportunity for service will undoubtedly be offered to us. It is suggested in all humility that we shall perhaps prepare ourselves for this better by biting hard on to the facts of living than by looking at a brickbat under a microscope.

CORRESPONDENCE.

Preparing for Peace—Labour Unrest.

To the Editors of THE ARCHITECTS' AND BUILDE
JOURNAL.

SIRS,—In Mr. Quennell's third article he ref with satisfaction to the germ idea of the Whit Committee and the setting up of Joint Industr Councils having originated in the brain of Sparkes, a builder and constructor.

It is, I think, generally conceded that the m constructive ideas emanating from the other, Socialist side, is the Guild system, and it may equally satisfactory to note that the germ of t idea emanates from an architect, Mr. A. J. Pen who, in conjunction with Mr. Orage, of the "N Age," has been actively engaged on this pro ganda since before the war. I think, also, th claim that the Whitley Report is an attempt to gr many of their ideas of Guild Socialism on to existing industrial system.

Mr. Quennell laments the absence of any signs the R.I.B.A. or architects in these controvers matters. Does innate modesty forbid reference in architectural journal to one of their own calling, is Mr. Penty so far removed from the classic calm Conduit Street as to be forgotten as an architect?

In your Editorial Notes you speak of the ne and more broadly humanising spirit that will in near future dominate industry. I wonder whet the prevalent Neo-Grec movement, with its stro academic tendencies, can prove an architectu expression of this impending new spirit, or whet it is merely the culmination of a series of fashi in what Bernard Shaw calls the parlour game "Style." Just before the war, painting, sculptu music, and poetry were all undergoing convuls but vitalising movements, so wild as to alm presage the coming world crash. No such prom ings were evident in architecture; indeed, Classical revival, with its correct taste and air gentility, rather pointed the other way.

It must in fairness be conceded that greater str has all along been laid on this "humanising spiri by the Art and Crafty School, eloquently voiced the late March Phillipps and others, who, I afraid, were officially regarded as peculiar peop too much devoted to beaten copperwork and that s of thing, whilst our vision was directed in the gra manner towards Versailles and Blenheim.

It is an uneasy thought that these are, perha not the most desirable models on which to base expression of the coming age, whilst an ideal mere bulk in wide streets, bridges, sewers, etc., a a general sense of "tidiness" leaves architect missing in its highest attribute.

Leeds. W. ALBAN JONES

INCREASE IN THE PRICE OF THE JOURNAL.

WITH next week's issue (March 6) the price the Journal will be raised to sixpence. regret the necessity for this increase, whi as our readers will readily understand, has beco inevitable. Paper has reached an exorbitant pri the fine process blocks which are a specially va able feature of the Journal have become enormou more costly owing to the scarcity of the met essential to their production, and the general cost printing has advanced very considerably. Con quently the proprietors are compelled to raise price of the Journal.

In preferring this course to the alternative reducing quality, we are assured of the gene approval and support of our readers.

WAR·BVILDINGS·SECTION

PLANNING AND DESIGN OF MODERN STEELWORKS.

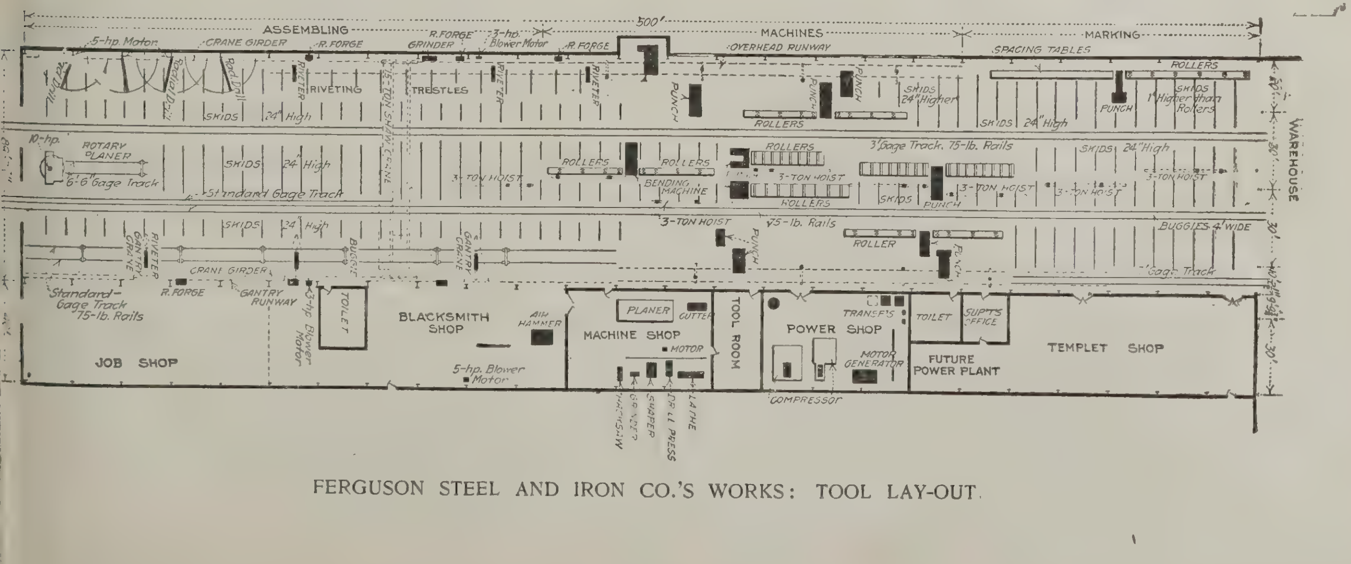
HE Ferguson Steel and Iron Co., of Buffalo, N.Y., was founded in 1913 nly as a warehouse business, furnish- stock material and simple fabrications nd around the city of Buffalo. The structure was a steel building 165 ft. and 100 ft. long. The next year it doubled in length, and in the two suc- ling years the additions shown in the mpanying drawings were successively e, until at the beginning of 1917 the n shop and warehouse was a building ft. by 165 ft., with numerous adjoin- offices and a large-material yard occu- g about five acres.

hile the warehousing business had vn, the structural fabricating plant had eloped beyond expectation. Special ntion was paid to small structural jobs immediate delivery both of these jobs of stock when required. Increase of ness required a further extension of plant, and this extension was so large as thought best to re-arrange the lay- entirely. When started in 1913 the ut of the works was about thirty tons per month. The new plant will have a capacity of 2,500 tons per month of fabricated material, and about 2,000 tons per month of warehouse material. The total area of the present site is about twenty-five acres.

One of the drawings shows the new plant lay-out and the relation of the new to the old plant as develoned. An entirely new fabricating shop, 130 ft. wide and 500 ft. long, is being added at one end at right angles to the old building, and an extension of 160 ft. is being made to square the old building into the new. The entire old building is to be used for warehouse storage, the addition to the new building in the corner for the temporary storage of warehouse material cut to length en route to the fabricating shop, and the new building entirely as a fabricating shop. In the warehouse will be stored in proper distribution all small structural shapes and reinforcing material. In the storage yard, north of the warehouse, the large structural shapes will continue to be stored. The entrance to the whole works is from a siding of the New York Central R.R., which runs parallel to the new shop, passes by the storage area, and into the warehouse.

The addition to the old warehouse is similar in design to that building. That is, it has a centre 83-ft. truss span with two side trusses 41 ft. each, forming continuous roof slopes from a centre ridge. The walls have an upper and lower row of glass in steel sashes, with intermediate iron siding. The shon floor is controlled from a longitudinal travelling crane running on girder tracks framed to the middle columns.

The new shop is of a different type, developed by the engineers of the Ferguson company to provide a maximum of light with a minimum of weight. The central section, 90 ft. by 500 ft., is adjoined by a lean-to 40 ft. by 500 ft. on one side, and is in the near future to be adjoined on the other side bv a 60-ft. wide section to be used as a girder shop. For the thirteen 20-ft. bays nearest the warehouse, which is the piece fabrication sec-



FERGUSON STEEL AND IRON CO.'S WORKS: TOOL LAY-OUT.

tion of the shop, the main roof is carried, with a clearance of 22 ft., on a truss simple in lay-out except for the extreme slope at the lean-to end and the 11-ft. monitor over the central four panels. The sloping sides of the monitor and of the main truss are provided with glass. The lean-to roof is carried on a simple truss with gradually sloping upper chord. The far eight 20-ft. bays of the main shop are spanned by a similar type of truss, but the clearance is 33 ft., and this section of the shop is to be used for assembling material.

On the east side of the building provision is made by the construction of column footings, for the future erection of the girder shop. For this shop sufficiently large column footings have already been built, but the columns themselves will be additional members probably fastened to the existing columns.

The type of roof truss building designed proved to be quite economical and from 10 to 15 per cent. lighter for the same capacity than the ordinary high-and-low-bay type used for fabricating shops. The new design runs about 20 lb. per sq. ft. of floor area. In addition it gives a higher degree of illumination at a cost not much higher than the old type of small window and steel siding.

The side walls are of upper and lower steel sashes with glass, the sash being of the Lightwell type, made by the Lightwell Steel Sash Co. A pedestal wall connects the column footings and an intermediate wall space between the sash is of 2-in. concrete plastered on wire mesh. A similar wall closes the opening between the high and low roof. The roof of both the monitor and the main truss is the Carey five-ply roofing type, while the lights in the sloping sides of the monitor and the truss are of glass framed into steel shapes designed and fabricated by the Ferguson company.

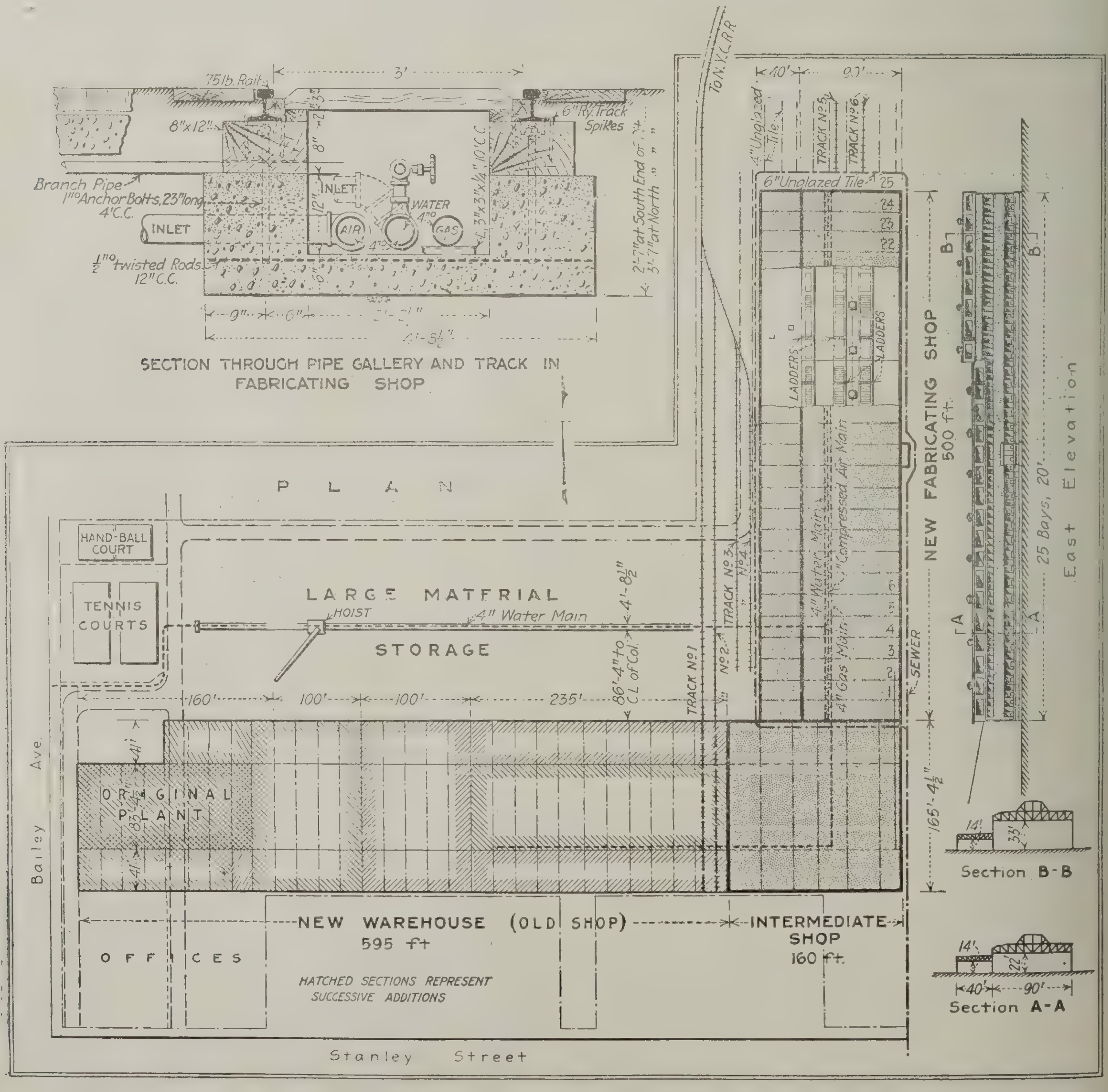
A feature of the fabricating shop is the crane equipment. The first twelve bays from the warehouse and of the low section of the shop are controlled by transverse three-ton cranes travelling longitudinally on girders which themselves travel transversely on the lower chords of the roof trussing. These cranes are in every other bay and their travelling girders overhang far enough into each intermediate bay so as completely to cover the shop floor. The detail of the crane and its method of travel are shown in the drawings. This crane can pick up any of the smaller material in the fabricating areas on either side of the central track, where it is skidded or rolled down the shop towards the assembly e

For the four bays beyond this there two transverse cranes of the same ty but of five-ton capacity, which carry m rial to the first assembly bay where con is had by a fifteen-ton longitudinal cr travelling on girders framed to the h columns of the building.

Additional crane service is had by ca lever cranes on both sides of the sh which cranes control the various pun and riveters which line the side, and sides these there are to be numerous h cranes which can be fastened to any pa the structure. These particularly are u in the various shops. Finally, there i be a gantry crane outside the far end of assembly shop to handle material to or storage. All hoists and cranes h electric control, the fifteen-ton crane f a cage, the others from the ground.

All the cranes use direct current, and the machines alternating current. former is generated in the company's power house, the latter purchased fr local company.

In addition to the crane control, main line standard-gauge tracks ent far end of the shop and extend throug assembly floor. Gantleted with the narrow-gauge tracks which run



FERGUSON STEEL AND IRON CO.'S WORKS: DIAGRAM SHOWING ADDITIONS.

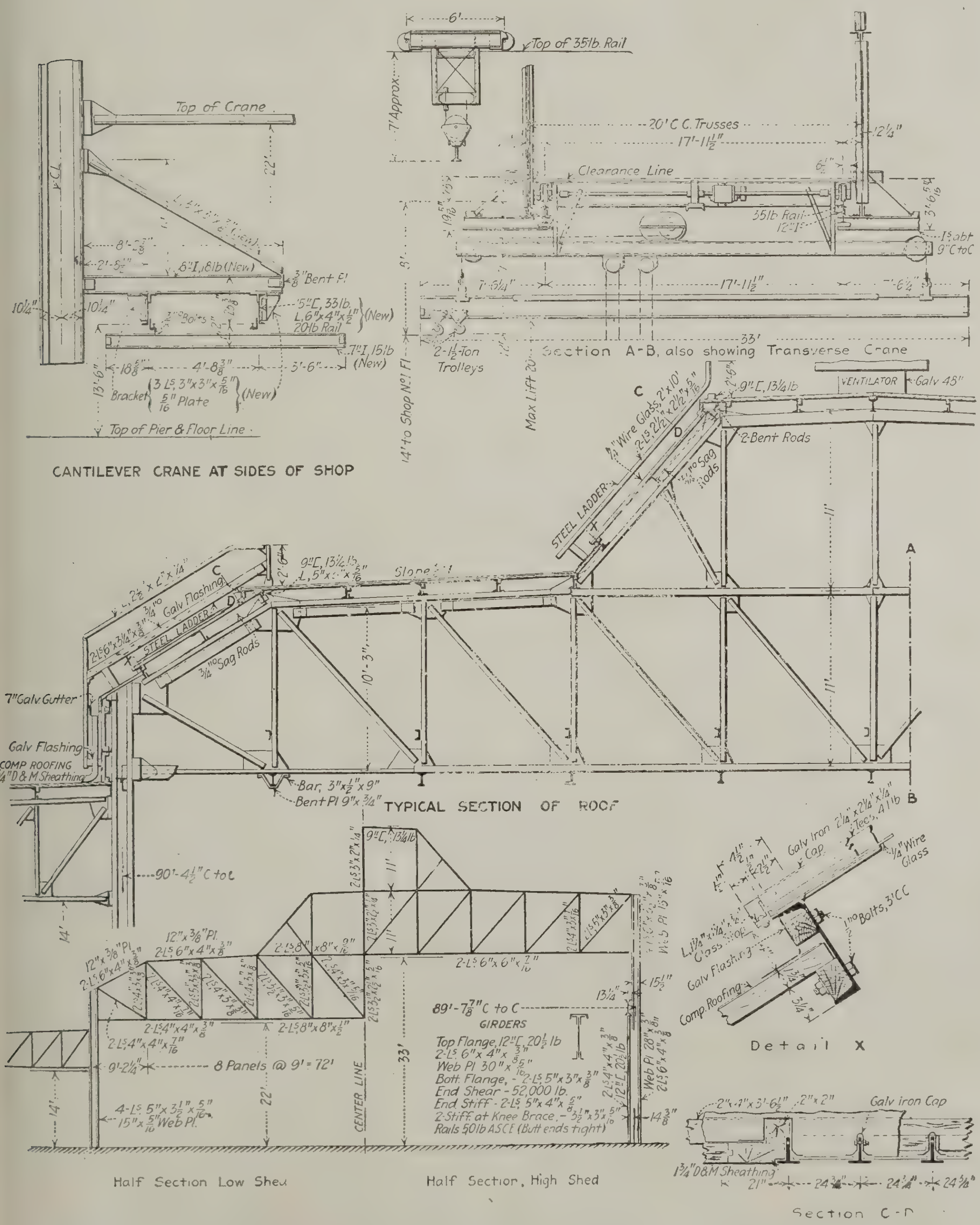
h into the warehouse. These tracks n concrete walls forming the pipe es, where all the heating and air are placed. An additional narrow-track runs alongside the lean-to to the warehouse.

structural framing of the shop ng is quite simple. The low ns are of outstanding angles with a web and the high columns of the type with an additional flange el under the crane girder. The tself is of double angles. All of the rk was designed to carry the various and cranes as laid out, but in addi- e columns were made extra strong e care of loading from hook hoists may be attached at any place.

There are about 625 tons of steel in the shop and 275 tons in the new corner to the warehouse.

Tool disposition in the shop is shown on page 91. The lay-out has been carefully made so as to facilitate movement through the plant. Thus warehouse material—which incidentally is bought and paid for by the fabricating shop just as though it were an outside purchaser—is sawed to length there and moved into the common corner section. From there it is moved, by crane or hoist, to the rollers or tracks on either side of the shop and punched. Pending further movement, it is stored in the central space between the narrow-gauge trucks. When required it is skidded through or by the jaw punch, in the middle section, to the angle shear or bending machine also in the centre section or to the riveters on either side. The central space is then again used for storage until the fifteen-ton longitudinal crane picks up the pieces for assembly in the far end of the shop, where are also located the radial drills and the planer.

In the lean-to are located, successively from the warehouse end, the templet shop, the power-house (although for the present power is purchased), the power shop, the tool room, the machine shop, the blacksmith shop, and the job shop. This last is an important feature of the plant, turning out small local jobs for quick delivery at relatively high tonnage price. The templet room floor is matched maple flooring run-



CANTILEVER CRANE AT SIDES OF SHOP

Section A-B, also showing Transverse Crane

TYPICAL SECTION OF ROOF

Half Section Low Shed

Half Section, High Shed

Detail X

Section C-D

FERGUSON STEEL AND IRON CO.'S WORKS: DETAILS OF FRAMING OF THE FABRICATING SHOP.

ning diagonally so as not to permit the cracks to coincide with the markings when pieces are laid out parallel with the walls.

The shop floor is remarkably well lighted from the roof and outside walls. Partitions between main shop and lean-to are also largely of glass in steel frame, thus permitting the outside illumination from that side also. It is expected that the shop will be heated bv hot-air blasts opening at or near each machine.

ANCIENT AND MODERN MORTAR.

In a paper on this subject read at a meeting of the Faraday Society, Mr. W. J. Dibdin said that the comparison between ancient and modern mortars presents many points of interest, particularly in regard to the quantity of lime, the character of the aggregate, and the presence of clay. The strength of certain old mortars has been quoted as if the art has been lost, but properly compounded modern mortars frequently possess strength equal to the best old samples.

An important point is that relating to the quantity of lime used. In some instances the volume of lime is measured as dry unslaked lime as received from the kiln. In others, the lime has been first "dry-slaked" and the required quantity taken from the powdery mass, which has a volume per unit weight of unslaked lime greater than that originally. In some cases the slaked lime is first made into a "putty," kept for a time, and then measured in that condition. All statements of proportions of lime to aggregate are generally given in terms of volume unslaked lime.

The analysis of a series of ancient mortars showed that the volume of aggregate to 1 volume of unslaked lime varied from 0.4 to 3.7, but the average of these was about 1, as compared with the modern practice of 3. The best results of a large number of mortars prepared for experimental purposes showed, out of fifteen samples that eleven contained 2.0 to 2.5 of aggregate to 1 of lime. The ancient mortars therefore contained more lime than is considered permissible in modern practice.

Modern specifications of the aggregate to be used for mortar generally state that this is to be "clean, washed sand, etc." The results of the analyses of ancient mortars of the twelfth and thirteenth centuries, and that of the London Wall, showed that the proportion of aggregate was not only less, but its character was largely that of gravelly sand with clean ferruginous clay.

In the samples of mortar from Allington Castle, early thirteenth century, the relative proportions of lime to sand, etc., were 1 to 1.7, 1 to 1.1, and 1 to 1.9. The percentage of clean ferruginous clay was respectively 8.6, 3.66, and 4.0 per cent. on the sand, which was fairly coarse.

Samples of Roman mortar contained clean lime and broken brick only, whilst another from Threlfall Castle, near Hythe, contained clean flint and pebbles for the aggregate.

As showing the character of some of the mortar used after the Fire of London, a sample from Painters' Hall, built by Sir Christopher Wren, contained lumps of lime, some soft and some hard, the "sand and grit" consisting of broken red brick and organic débris, evidently old rubbish from the ruins of the fire.

The results of special experiments show distinctly the reason of the advantage gained by the early builders in fixing their ratio at about 1 to 2 and the use of a coarser aggregate. The modern rush after economy, by reducing the quantity of lime, is very largely responsible for the falling off in quality.

The use of clay is disadvantageous with white chalk lime and greystone lime, but with blue lias lime a marked improvement is sometimes obtained.

An essential factor in regard to the strength of mortar is that relating to the voids between the particles. A mortar made with a sand having 40 per cent. of voids had a crushing strength of only 70 lb. per cubic inch, whilst with a sand having only 23 per cent. of voids the crushing strength was 154 lb.

The suggestion that soluble silicates are formed in the course of time is not borne out in the author's experience. The examination of numerous samples of ancient mortar revealed the presence of no more soluble silica than is normally found in ordinary fresh-made mortar. Certain cases are met with in which the soluble silica is much higher, but in such instances the character of the mortar leads to the conclusion that trass or pozzuolan, etc., had been employed.

The setting of mortar was ascribed by Graham to the fact that "on drying the mortar binds the stones between which it is interposed, and its own particles cohere so as to form a hard mass solely by the attraction of aggregation, for no chemical combination takes place between the lime and the sand, and the stones are simply united as two pieces of wood are by glue." "From the minute division of the silica and alumina in hydraulic mortar, their combination with lime is more likely to occur than in ordinary mortar. Still, the fixing of the hydraulic mortar seems to be chiefly due to the fixation of the water and formation of a solid hydrate like gypsum." This view entirely agrees with the author's experiments.

THE GOVERNMENT HOUSING SCHEME.

It is announced that the Government will make a sufficiently substantial grant for the erection of houses to enable local authorities to place in hand, without further delay, the work of preparing designs for laying out sites and the purchase of land for housing schemes. It is not, however, proposed to commence building until after the war. About 300,000 dwellings are contemplated for England and Wales and 50,000 for Scotland, building to be commenced during the demobilisation of the Forces. Employment will thus be provided for several hundred thousand men.

The financial aid to be given by the Government to local authorities will be for approved schemes, and in this relation the policy will be that of requiring local authorities to adopt the best modern standards, both in regard to the planning of sites and the designs of houses. The designs sent in for the competition of the Royal Institute of British Architects, for which the Government have given £5,000, will be of great service. It is desired that schemes should be prepared and held in readiness to be administered directly demobilisation commences.

The proposals with regard to London will be considered at a conference called by the National Housing and Town Planning Council to be held on March 14 and 15 next at the Caxton Hall, Westminster. A resolution will be submitted expres
approval of a series of proposals with
gard to the framing of a comprehen
housing scheme for London and Gre
London. Various suggestions made
that preferential treatment should be g
to large families; that groups of ho
specially designed should be set apart
the tenancy of families, members of w
are suffering from tuberculosis; that s
areas should be cleared, and hou
schemes carried into effect wherever t
is a shortage.

R.I.B.A. HOUSING COMPETITI RESULTS.

Last week we published the award
four of the areas—Midland, South W
Northern, and Manchester—in wh
under the authority of the R.I.B.A.,
petitions have been held for co
designs. Following are the awards
the South-Western Area:

CLASS A.

£100, Messrs. Thornely, F.R.I.
and Rooke, Plymouth; £50, Mr.
Heathman, Licentiate R.I.B.A., Br
honourable mention, Mr. T. Bra
Ball, A.R.I.B.A., Weston-super-M
and Mr. Charles Cole, M.S.A., Exete

CLASS B.

£100, Messrs. Thornely and Ro
£50, Mr. H. Heathman; honourable
tion, (Major) O. P. Milne, F.R.I.
Pulborough, Sussex.

CLASS C.

£100, Mr. W. A. Greenen, Port
light, Cheshire; £50, Mr. W. Ravens
F.S.A., F.R.I.B.A., Briancroft, Mil
on-Sea, Hants; honourable men
(Captain) Cyril A. Farey, Lynd
Road, Exeter.

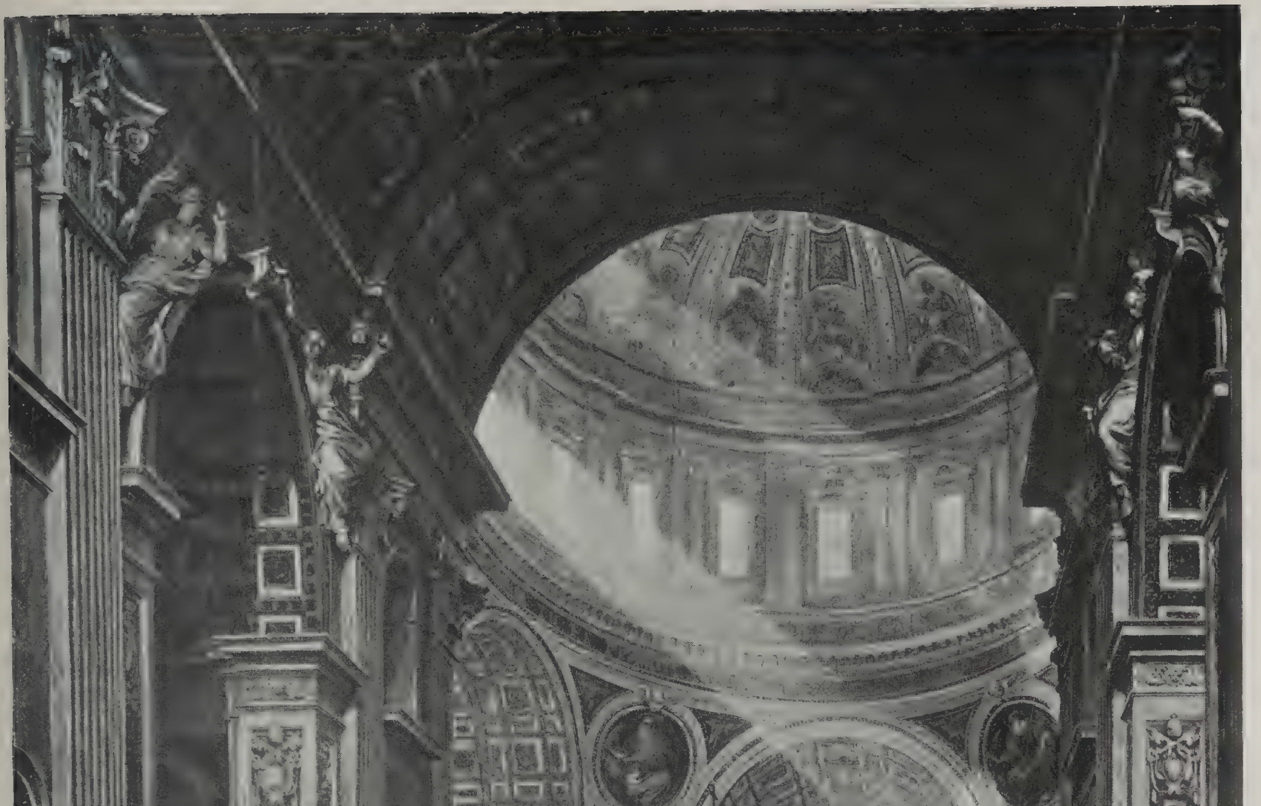
CLASS D.

£50, Mr. Charles Cole; £30, Mr. W
Greenen.

The assessors were Messrs. Stanle
Adshead, M.A., F.R.I.B.A.; Frank
Wills, F.R.I.B.A.; and James Cro
F.R.I.B.A.

THE REBUILDING OF LON AFTER THE GREAT FIRE.

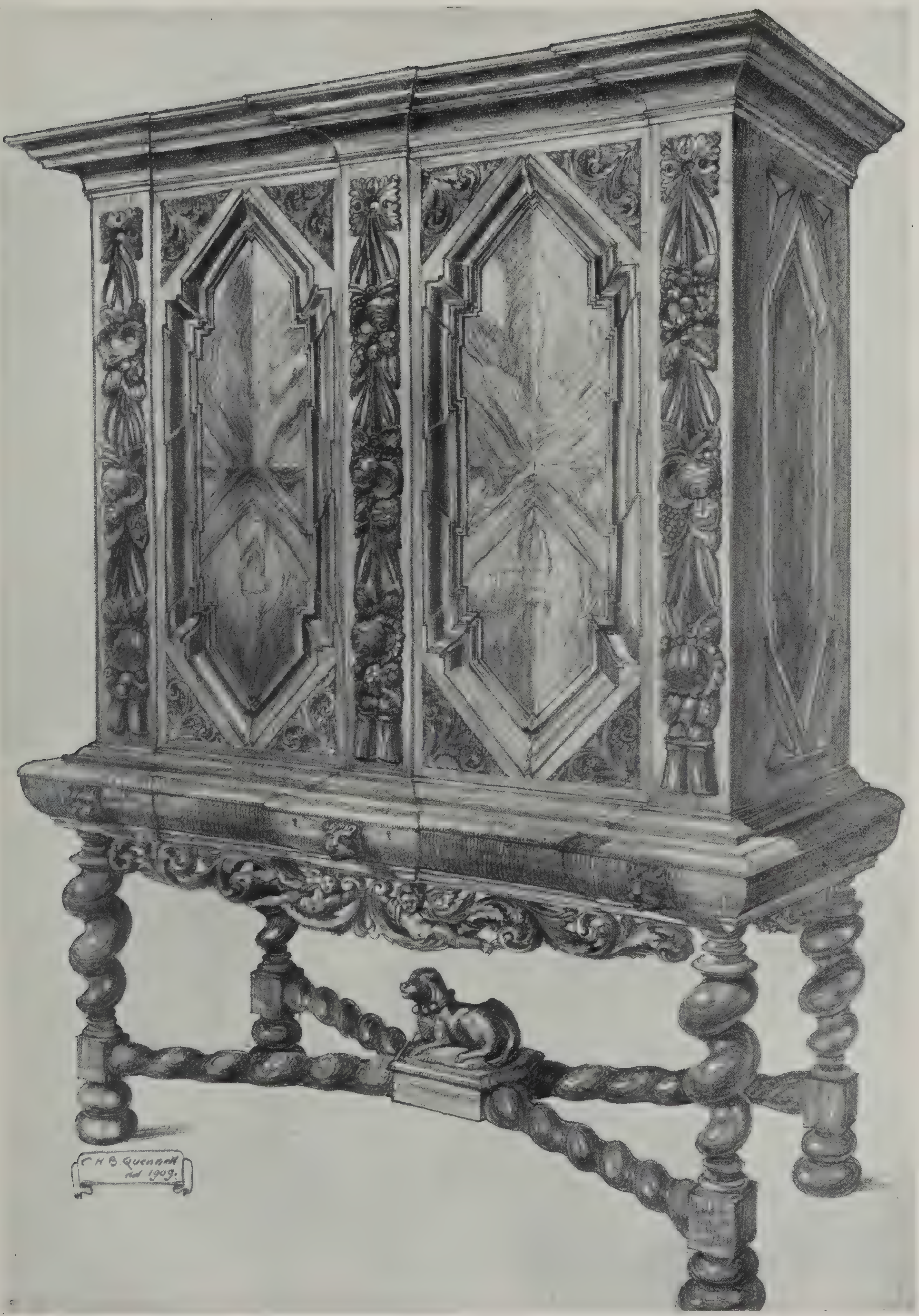
Arrangements have been made fo
reading of a paper on "The Rebui
of London After the Great Fire" b
Walter G. Bell at the general meeti
the R.I.B.A. on March 4 at 4 p.m.
Bell, who is a brother of Mr. R. A
Bell, has been working for some yea
a detailed history of the fire of 1666,
will possibly be published before th
of the present year. It will be re
that there is no proper history of the
Fire. Mr. Bell's material on the re
ing is entirely new, having been coll
by himself with great labour from
minutes of the City Corporation and
Guilds, Privy Council, surveyors' ret
building accounts (Wren's and ot
memoirs and letters, substantially
which are still in manuscript. The
clusions based upon them are tha
struggle to restore the city was much
severe, and the time taken in rebui
much longer than the inscriptions o
Monument and popular belief would
one to suppose. Mr. Bell's paper w
illustrated by slides showing a surv
the ruins, model plans for the new
types of houses raised under the Re
ing Act, etc.



ARCHITECTURAL DRAWINGS AND SKETCHES. XIII.—THE NAVE OF ST. PETER'S, ROME

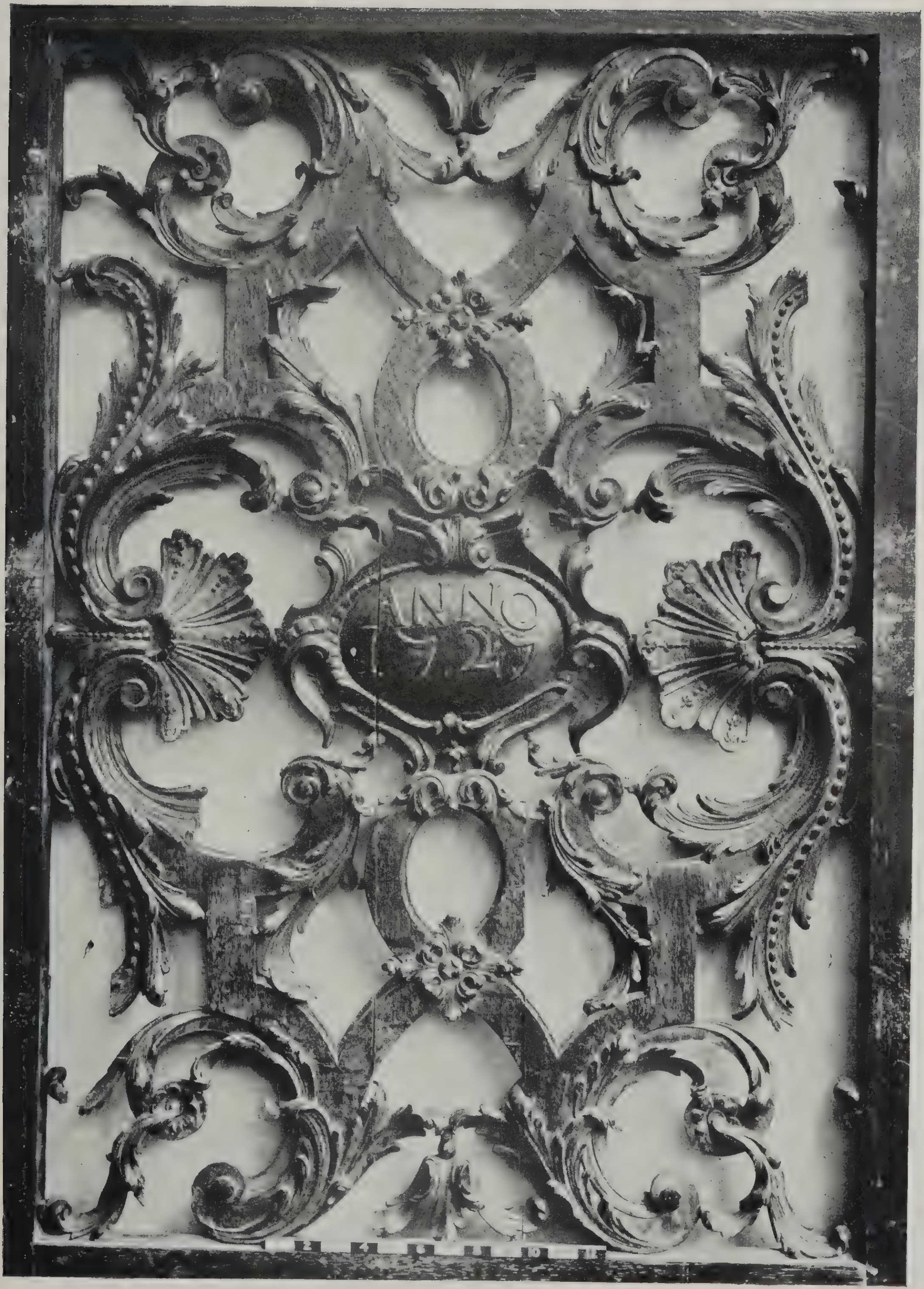
FROM A WATER-COLOUR DRAWING BY LOUIS HAGHE.

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)



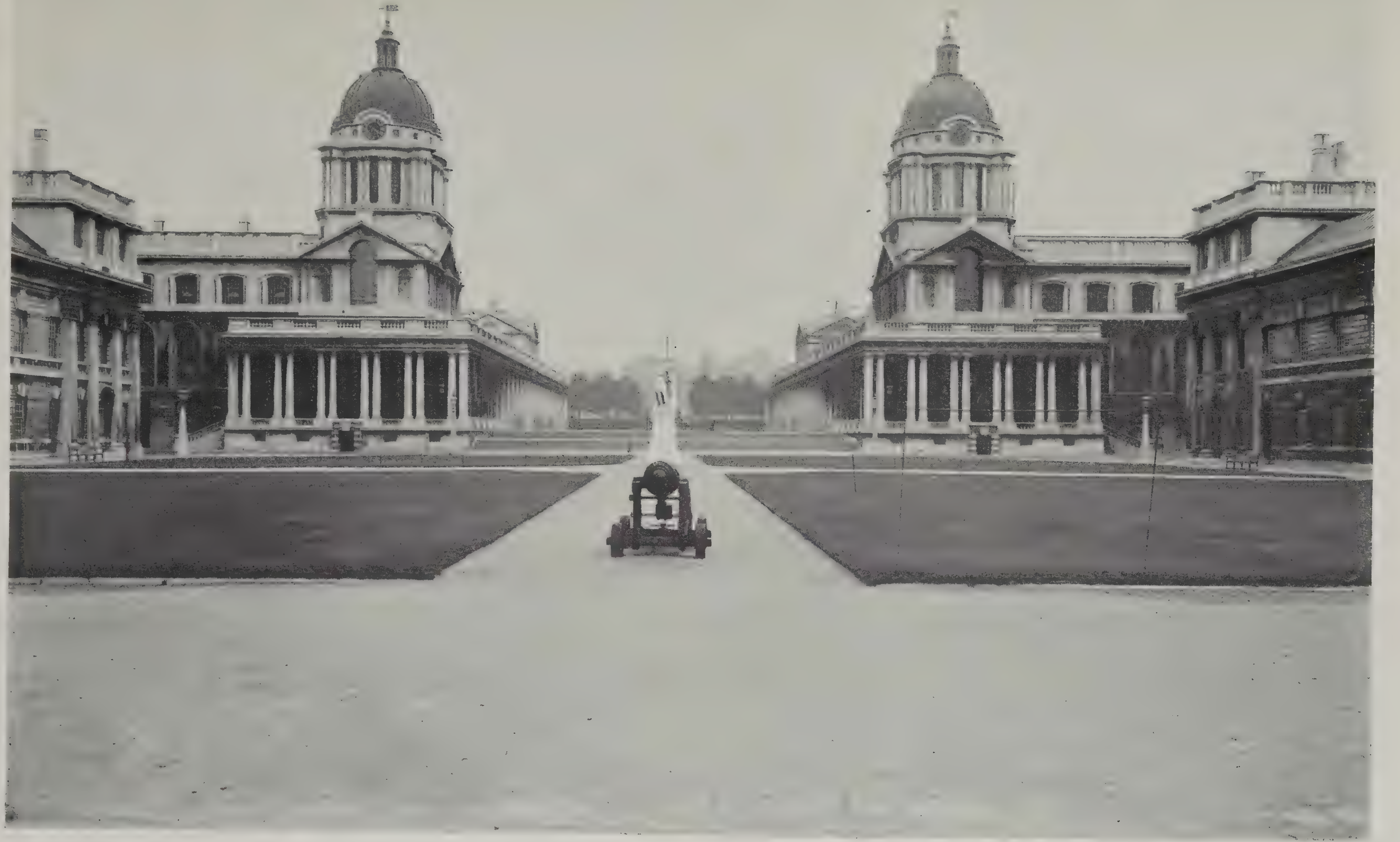
DETAILS OF CRAFTSMANSHIP (SERIES III.). XV.—AN OLD CABINET.

FROM THE PENCIL DRAWING BY C. H. B. QUENNELL, F.R.I.B.A.



DETAILS OF CRAFTSMANSHIP (SERIES III.). XVI.—DETAIL OF OAK SCREEN SAID TO HAVE COME FROM PONTOISE.

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)



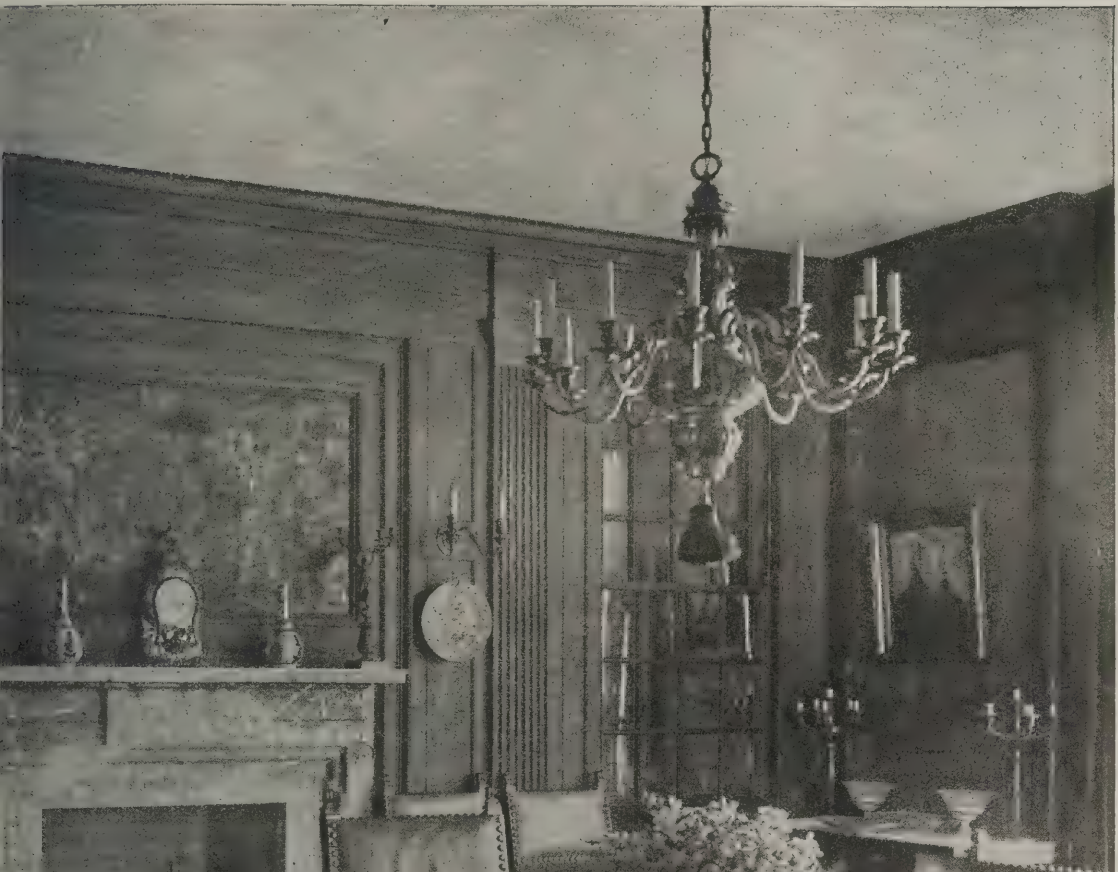
MONUMENTAL ARCHITECTURE (SERIES II.). XXXIX.—THE CUPOLAS AND COLONNADES, GREENWICH HOSPITAL.

SIR CHRISTOPHER WREN, ARCHITECT.

ARB

[illegible]

MODERN AMERICAN ARCHITECTURE (



II.). III.—DINING-ROOM IN A HOUSE AT CLEVELAND, OHIO.

S A. PLATT, ARCHITECT.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

MARCH 6, 1918. TOTHILL STREET, WESTMINSTER. VOLUME 47. No. 1209.

NATIONAL PAPER ECONOMY.

*)wing to the very necessary Government restric-
:s on paper supplies, all elements of waste must
rigorously excluded. Our readers, we are sure,
l gladly assist in promoting this object, which is
item in national economy. They can co-operate
h us effectually in either of two ways—(1) By
:ing a direct subscription for this Journal, or (2)
placing with a newsagent an order for its regular
ivery. Casual purchases—now here, now there—
ıte a serious discrepancy between supply and
ıand, and cause wastage of effort and materials.*

MONG the curiosities of correspondence is a
letter to the editor of the Institute "Journal"
propounding ten consecutive questions. We
not remember to have seen anywhere else, except
.n examination paper, such an imposing procession
marks of interrogation. Its author, Mr. Frank M.
;ood, F.R.I.B.A., ought to be in the House of
nmons, so consummate a master is he of asking
kward questions. He is, indeed, a formidable rival
Socrates as reported or interpreted by Plato. That
Frank Elgood's questions are akin to Socratic
ers may be seen from these few but fair samples:
the cause of the supposed intention of
Government to control building after the war
ed upon the belief that there will be a shortage of
terials and labour? If not, for what other reason
uch control likely to be instituted? If so, however,
: denied that there are grades of importance to the
nmunity in regard to the various classes of building
ting to be undertaken? Does the Institute
ously contest the allegation that working-class
ses are wanted by the thousand? If not,
t not more important to build them than to build
thing else? May it not also be of more import-
e to the nation to give priority to the building of
tories than mansions for those enriched by the war?
thout some form of Government control, how is it
gested that such priority can be obtained?" Here
eth the catechism, and one likes to see, in imagina-
ı, Mr. Elgood folding his arms across his heaving
ast and saying, "I pause for a reply." One can
, also in the mind's eye, some responsible holder of
Ministerial portfolio of the Institute demanding
ice of those questions, or, alternatively, evading
m with, "The reply to Nos. 1, 3, 5, 7, and 9 is in the
rmative; to Nos. 2, 4, 6, 8, and 10 in the negative."
vice versa.

* * * *

Ir. Elgood's questions, however, which are really
ertions interrogatively expressed, are formidable in
stance as well as in number, and are to be treated
te seriously; for the views they imply will,
believe, command the assent of all far-
ıted and public-spirited members of the pro-
sion. From the first we have regarded
regrettable the form of the resolution to
ch these pregnant questions refer. It was
ınfortunately worded as to convey to outsiders an
oression that its sponsors were asserting rather dis-
portionately the least liberal of professional in-
ests, and were temporarily oblivious or indifferent
oroader issues. Any demand for abandonment of
vernment control almost simultaneously with the declaration of peace is, to say the least of it, not statesmanlike, and could only be justified on the rather poor principle of demanding more than one expects to receive. Unhappily, this method of request is in accordance with established precedent, with the consequence that demands upon the Government are generally regarded as "subject to the usual discount." Our views on this matter of control have been repeatedly stated. Briefly, they are that, while it can be unduly protracted, and no doubt will be unless it is carefully watched, its abolition immediately after the cessation of the war would result in wholesale hoarding and cornering of scarce materials, and in other injustices and confusions that would be far harder to bear than a brief continuation of the ills with which we are familiar. We fear, too, that in the exercise of that control, priority will have to be given to certain classes of building, such as those mentioned by Mr. Elgood, whose implications may be unpalatable, but are, we think, in the main irrefragable. Nevertheless, the R.I.B.A. and other organisations should keep keenly watchful of this problem of control, which is much less simple than it looks, and is not to be solved by rough-and-ready methods—neither by those embodied in the resolution, nor by the arbitrary exercise of unchecked State control.

* * * *

In a recent issue of the "Board of Trade Journal" there are valuable recommendations from the Departmental Committees on After-War Trade. Advice relating to the iron and steel industries, the engineering trades, and the electrical trades respectively specifies consolidation as a basic proposition. "Only solidarity of action will enable the iron and steel industries of the United Kingdom to maintain and improve their position in the markets of the world. . . . The manufacturers should associate themselves for the purposes of export trade, and should form common selling organisations by the extension and consolidation of associations which already exist." The engineering trades are recommended to follow the examples of the United States and Germany. In both these countries the object is, especially by supporting experimental investigations and scientific departments, to co-ordinate production, to promote efficiency, to economise waste, to push home trade, to facilitate export trade, and to unify selling arrangements; the ideal being the maximum of production at the minimum of cost. Very emphatic views on the advantages of combination to promote joint interests in the export trade are expressed by the committee reporting on the electrical trades, and here again the example of Germany is cited: "Only two or three German companies are seriously engaged in the electrical business overseas, and the competition which British manufacturers have to face is almost entirely with these houses. But these competitors, though few, have immense resources, with highly trained staffs and competent workmen, their factories are well equipped, they have established branches all over the world, and retain elaborate research laboratories." There are, of course, obvious dangers in amalgamation; one being the tendency to penalise the home consumer for the expenses of keen competition in foreign markets; but this is an injustice that can be avoided, and must be, if the foreigner is to be beaten in the home markets: to which, however, he will probably be denied the old free access.

* * * *

That love of mysticism which seems inherent in all properly constituted mortals, and is perhaps specially conspicuous in war-time—probably in reaction against the threatened tyranny of stern fact—will find a considerable measure of gratification in the current issue of the R.I.B.A. Journal. It crops up in a mild form in a correspondence on the Comacine Masters, in which Sir Thomas Jackson casts doubts on the theory which Mr. Ravenscroft so persistently upholds; and it appears in an acute form in a book review contributed by the Rev. G. W. Saunders, of Martock, Somerset. Mr. F. Bligh Bond, F.R.I.B.A., produced the book—"The Gate of Remembrance"—which is issued as "a record of remarkable archæological discoveries directed by means of a method of automatic writing scientifically applied," and Mr. Saunders, who reviews it, was an eye-witness of some of the phenomena it records. It is difficult to summarise the somewhat prolix narrative without doing it some injustice, but the weird interest involved justifies an attempt. Briefly put, the salient points are these. For many years the situation of the Edgar Chapel at Glastonbury, mentioned by Leland, had been a recurrent subject of dispute among archæologists. One of the most eminent of them dug for it, and, finding no traces of it, seemed to prove that both the legend and the chapel were without foundation. Mr. Bligh Bond, however, was not satisfied. He studied the subject intensively, exhausting all the available sources of information.

* * * *

Baffled in this quest, he looked in another direction for light. "It was now," writes Mr. Saunders, "that he determined to cultivate the imaginative faculty and to make use of a friend's powers of automatism. A series of sittings took place at irregular intervals and extended from 1907-11, 1912, and more recently. The method of procedure was to remain passive, avoiding concentration of mind upon the writing, and to talk casually of indifferent matters. While his friend took the pencil, F. B. B. steadied the paper with one hand, and the other he rested lightly on the back of his friend's hand. The result was a series of most remarkable scripts," confirming Leland's statement that Abbot Beere had built a chapel of St. Edgar, and adding its dimensions and certain other particulars, as that the windows were fitted with blue glass, that there was fan vaulting to the chapel, and that the St. Edgar chapel was approached from the retrochoir through an ante-chapel, from which a stairway divided by a handrail led to the chapel beyond. On faith in these revelations Mr. Bligh Bond began fresh excavations in 1908, pitching at once upon the exact site of the chapel, which was found to correspond very closely to the information given in the automatic writing. Truly a strange story, and one which it would be equally unscientific to receive either credulously or sceptically. Mr. Bligh Bond, in attempting an explanation, takes a middle course between supernaturalism and materialism. He suggests "that the embodied consciousness of every individual is but a part of a transcendent whole, and that within the mind of each there is a door through which Reality may enter as Idea, Idea presupposing a greater, even a Cosmic Memory, and involving wider fields and transcending the ordinary limits of time, space, and personality."

* * * *

It is a fascinating theory, but gives us only just the faint glimmering of light that makes darkness visible. It will probably renew the activities of those who are in quest of a fourth dimension, will exc the minds of ultra-Emersonian Transcendentalis such as the "In-Tune-with-the-Infinite" school thought, and, unfortunately, will give a fresh impu to superstition. Automatic writing may be a p fectly explicable natural phenomenon, the result more or less "sub-conscious cerebration," but neit more nor less wonderful than many another obsc manifestation of the medulla. Touching swiftly right keys on organ, pianoforte, or typing mach involves much automatic action; and everyone heard of problems solved, plots and poe elaborated, by a brain that had been composed sleep. Stevenson's "Dr. Jekyll and Mr. Hyde" conceived in a dream. Sleeping or waking, Coleri was always a dreamer, and there are innumera instances of similar character. That of the archit who, telling a candid friend, "I conceived design in a dream," was met with the unfeel response, "Must have been a nightmare!" recalled for the salutary effect it may have in corre ing a flabby tendency that seems inseparable fr the discussion of such phenomena, even w eminent and hard-headed men of science underta to investigate them. All that can be safely assum is that apparently there is a vast unexplored field mental operations awaiting scientific study, and t in the meantime wild guesswork about them is m often mischievous than profitable.

* * * *

Statues, as we have found frequent occasion remark, are great travellers: whether or not, like t to Bartolomeo Colleoni, in the Campo at Venice, t are of the equestrian order—when, indeed, being less portable, they are the less likely to bec itinerant. Colleoni's statue has been much un discussion during the past few weeks, the chief p being whether Verrocchio or Leopardi had the lar share in its production. Leopardi, who claimed distinction, handled the truth, it would seem, in large, careless way of a man over-endowed with artistic temperament, but it does not necessarily fol that, as some have averred, he was in this insta making claims that could not be substantiated. this point remains indeterminate, there is no nee expatiate on it, beyond remarking that the champi ship of his claims bears a rather damaging resembla to that in the strange contention that the real aut of an accredited work is generally someone else— that Euripides was really Aristotle, that Francis Ba wrote Shakespeare, and George Cruikshank was real author of "Oliver Twist," if not of the "Pick Papers." We smile and pass on to a rather interest story told in the "Times" by Mr. Lionel G. Robins It is the more piquant for being to some ext personal. Mr. Robinson states that some fifty ye ago he stopped in front of Messrs. Attenboroug shop at the corner of Adam Street, Adelphi, to adm a small equestrian statue exposed in the window. was asked five pounds for it, and shook his he For at least a twelvemonth the statuette found purchaser. Then it disappeared from the window faded from Mr. Robinson's memory. A few ye ago he saw it in the Louvre, where he was told it had been bought in Germany, where it had chan hands several times, until finally a French expert it and reported upon it to the French Minister of F Arts, who acquired it for twenty-five thousand fra —roughly, more than five hundred guineas! It catalogued as being probably the original design the Colleoni statue. Its history had been caref traced, and its sojourn in England duly recorded, t confirming Mr. Robinson's missed opportunity. is a story that could no doubt be paralleled, but often. If genuine, the statuette dates, of course, fr the late fifteenth century, Verrocchio having died 1488.

HERE AND THERE.

ID a peppery old military officer in one of
H. J. Byron's clever comedies, "Um! I don't
like his back!" There is more candour in a
than in a front elevation. On the one side we
a studied effect that is often hypocritical; on the
r side, unsophisticated natural expression. He
astute, therefore, who said, "I always judge a
e by its back"; yet a more just judgment would
ormed on a complete survey, outside and inside.
aking the final assessment, due allowance should
nade for the universal desire to show a fair face
e world, and for the inveteracy of the window-
sing habit. No more than others do I like the
faced villa—red pressed and blue-pointed
ngs in front, dirty shuffs and crumbling joints at
back. It is disappointing, if not dishonest,
ting the effect of a promise unfulfilled. It has
irtues, however, for he who demands that the
should be as comely as the front forgets to be
eful that the front is not as unlovely as the back.

* * * *

et Wren is often guilty of a brick church with a
e front; and the Greeks and Romans achieved
dsome effects with a thin veneer of marble over
gh rubble: camouflage being as old as civilisation
s sin. Commonly the reverse of the shield is less
ate than the front for sufficiently obvious reasons,
these do not apply with equal force to a house.
e—with an important exception to be presently
ced—the front of a street house is seen every day
a thousand persons who are mercifully spared a
k view; but then the back view is the one that is
t constantly seen by the inmates and by their
nediate neighbours; and I find here one of the
ons why the claim for proportional representa-
has been revived so clamorously. Contemplation
gly house-backs has convinced the town ratepayer
he persistent injustice to minorities. This is a
-sided view—a deduction based on an imperfect
ey of the premises. If any injustice is involved
imposed as a tyranny of the minority who build.

* * * *

hen there is the disconcerting factor of the rail-
to be considered. Every London line carries
by day thousands of passengers through miles
back—gardens, I was about to say, but premises
ld be a truer word. London, take it for all in
is not yet a Garden City; and to see only once
n the railway train the backs of the houses of
n streets is either to despair of humanity or to
ome an instant and an ardent convert to housing
rm. Most passengers adopt the former course,
alor being notoriously soul-deadening. Some-
es the houses are so close to the line as to call up
shes at being so near the bedroom windows and
er objects that it would be indelicate to specify
ond hinting that they figure all too prominently
he back additions which, I am glad to see, hous-
experts condemn almost unanimously; for the
tum that "a building should frankly express its
ction and purpose" can be pushed too far. One
dly knows which is the more distressing sight—
inexpressible untidiness of some of these back-
ds, or the pathetic attempt in here and there one
nake "a bit of garden," or to hide the ugly walls
ind a sickly canary creeper. It ought to be
ninal to drive people to such pitiful straits.

* * * *

hen there are what Phil May called, in the neatest
misquotations, "the short and simple flannels of
poor." These, though not an exhilarating
ectacle, offer some slight compensation in their
dence of a desire for cleanliness. But for the railways one would be spared this experience; which, however, is less painful than that of seeing the family linen unblushingly exposed in the forecourts of back-to-back houses in the North. Still further north, in some of the Scottish cities, they pursue the odd practice of hanging out the washing on a sort of hayrake implement thrust through the window-openings of the upper storeys. I remember to have seen, however—in Edinburgh, I think—some of the tall tenements built round a considerable area of greensward, which was common land for all the tenants, who used it mainly as a drying-ground. I do not know whether it was used also as a playground for the children, who, indeed, in Edinburgh, have the exclusive use of a kind of collective playground, or children's park. What provision is made for their amusement I do not know, for I was sternly forbidden to enter—no other human being invested with a little brief authority can be quite so dour as a Scots janitor. This idea of a children's park rather took my fancy. It seems to provide against the mixed medley that, in the London parks, has too often resulted in unpleasant incidents of various kinds.

* * * *

Town-planning ought to keep houses well away from the railway—or vice versa. Railways have no moral right to destroy the amenity of towns, and, as in certain American cities, should be compelled to dive underground when they come within sight of a centre of population. This reform will come to us when a more healthy civic sense is developed, and when, consequently, every attempt to abuse wealth and power to the injury of the commonweal will be regarded as an indictable offence. But when it is generally recognised that property has duties as well as rights, and that the well-being of the community must outweigh all other considerations, there will be small need for protest, and still less for prosecution. One thing that the railways have done for the uglification of towns is the erection of miles of fencing of the most horrible kind. It is made of dirty old worn-out railway sleepers—"than which——," as they used to say at Hawarden, leaving a hiatus more expressive than mere words. I know of an otherwise rather beautiful park that is bounded on one side by this sleeper frightfulness, which simply kills the park. I can only hope that some sudden and overpowering sense of civic dignity will ere long stir up the lieges to make a public bonfire of that palisading. A fitting occasion will arise when peace is declared. It is not to be a lawless act, but a solemn function, headed by the Mayor of the Borough wearing his chain of office, and the chairman of the railway company shall be accorded the high privilege of hewing down the first sleeper, provided that his company atone for their former misdeeds by erecting a comely fence designed by a competent architect. They will get off cheap.

* * * *

Those slum backs are a constant reminder of communal ineptitude. Millions of money are spent in correcting what ought to have been prevented; and the cost of building and maintenance of hospitals, jails, asylums, workhouses, does not represent a hundredth part of the waste of which the germs are in the slums; the vast mass of it seethes more or less secretly. There are much worse and much more numerous slums than those that can be seen from the railways, and their aggregate effects on the moral and physical health of the community would, if only they could be ascertained, fairly frighten us into instant action: for bad housing saps the nation's energy and character.

DIOGENES.

MR. ERNEST NEWTON: ROYAL GOLD MEDALLIST, 1918.

THE nomination of Mr. Ernest Newton, A.R.A., as Royal Gold Medallist for 1918, will receive the hearty approval of the entire profession. Mr. Newton's record of war-service would alone justify his selection; that he happens to be a distinguished architect, with a most engaging personality, emphasises the happiness of the choice of those who are responsible for awarding the highest distinction that the Institute has to confer. Mr. Newton was elected President of the R.I.B.A. in 1914, and he continued to serve in that capacity until last year, when he was relieved of the cares of office by Mr. Henry T. Hare.

Mr. Newton was born in London in 1856, and was educated at a preparatory school at Blackheath, afterwards proceeding to Uppingham. In 1873 he was articled for a term of three years to the late Mr. Norman Shaw, with whom he stayed for a further three years, after which he began to practise on his own account.

Since that time Mr. Newton has acquired a very distinguished reputation as an architect of domestic buildings, of which a large number have been erected from his designs in all parts of the country. Mr. Newton, indeed, is in the forefront of that select band of architects who in our own day have brought about a renaissance in English house building which is the object of world-wide study and admiration.

Mr. Newton's work, though of a distinctly individual kind, shows a careful regard for the vernacular domestic styles. "Upton Grey," Hants, and "Ardenrun Place," Surrey, may be cited as fine examples of the two principal styles he has made his own—the first showing all the peculiar charm of the homely type of dwelling that developed in England during the Tudor period, the second following the more sedate and stately lines of the "Georgian" mode.

MR. ERNEST NEWTON, A.R.A., P.-P.R.I.B.A.

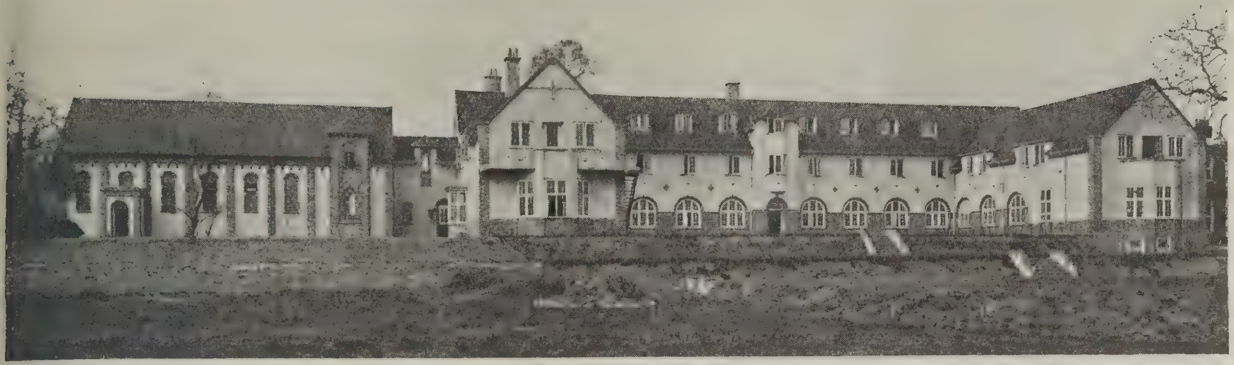
Although Mr. Newton has specialised in domestic work, he has not neglected the more monumental side of architecture. In particular, he designed, in conjunction with Mr. Norman Shaw, an excellent o block at the bottom of St. James's Street, Loudo

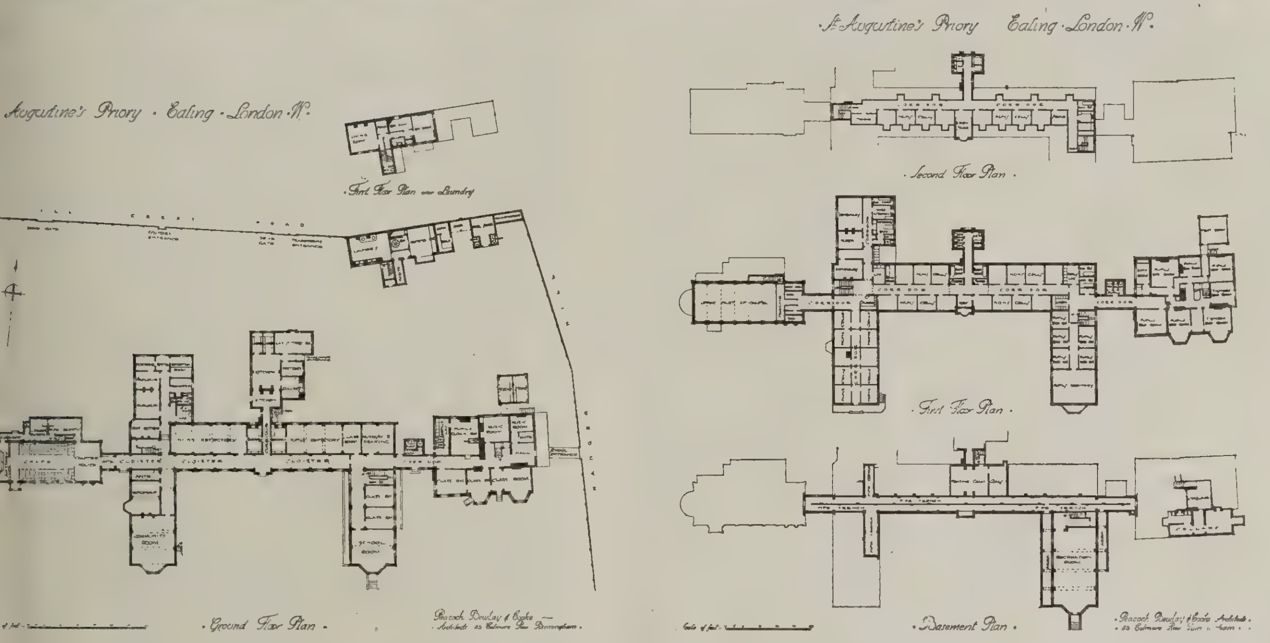
Mr. Newton was closely identified with the forma of the Art Workers' Guild, which began in qu humble way in the early 'eighties. It grew ou what was known as the St. George's Art Society, was originally limited to architects, the meet being held in the offices which Mr. Newton occupied in Hart Street, Bloomsbury. Later, followers of other arts and crafts were admi and the society developed and flourished.

In more re years Mr. Nev joined the com tee of archit under whose di tion the "Archi tural Review" issued for s considerable t He was made Associate of Royal Academ 1911, and has a as Chairman of R.I.B.A. Board Architectural E cation.

Mr. Newto principal works clude: "Bull Wood," Chi hurst; "Redcou Haslemer "Glebelanc Wokingha "Steep Hill," sey; "Da House," Winch ter; "Arden Place," Surr St. Swithu Church, Hit Green; Cha House of Retr Clerkenwell; to and spire, George's Chu Bickley; and M tin's Bank, Br ley.

Mr. Newt while modest unassuming to fault, is nevert less esteen as a deligh conversation possessing a kee incisive wit, wh he more of than not turns against himself. Had he chosen adopt the career of a man of letters instead of tha an architect, he would have achieved equal eminen for he wields a clever pen, and has done good ser on the literary side of the profession. He has fo too little leisure, however, for the exercise of authentic literary gifts, which include an uncommo graceful style. Most of his writing has been for fessional periodicals; but he has published at le two volumes—"A Book of Houses" and "A Book Country Houses."




Augustine's Priory · Ealing · London W.
· First Floor Plan over Laundry
· Ground Floor Plan ·
Peacock Bewlay & Cooke — Architects 83 Colmore Row Birmingham.
· St. Augustine's Priory Ealing · London · W.
· Second Floor Plan ·
· First Floor Plan ·
· Basement Plan ·
· Peacock Bewlay & Cooke Architects · 83 Colmore Row Birmingham ·

ST. AUGUSTINE'S PRIORY, EALING, LONDON PEACOCK, BEWLAY, AND COOKE, ARCHITECTS.

THE PLATES.

St. Augustine's Priory, Ealing.

ROM the designs of Messrs. Peacock, Bewlay, and Cooke, of Birmingham, an interesting scheme of buildings has lately been completed Ealing, for the Canonesses Regular of St. Augus-e—a community which, founded in Paris in 1634, noved to England in 1911. The interior of the lding is finished very simply throughout, but a ture has been made of the cloisters, which have a rel ceiling decorated with enriched plaster, also a vement of dull green tiles and walls of a grey our. The buildings externally are finished with er-grey rough-cast, the angle piers and the plinth ng faced with thick bricks of a broken colour, and roofs are covered with thick handmade sand-ed tiles with bonnet hips. The chapel itself is ried out in the Byzantine style. The walls inside faced with rough plaster finished white, with a h skirting finished black, the necessary colour ng supplied by the windows, the heads of which tain mauve and blue panels on a dull green and te ground.

King William's Block, Greenwich Hospital.

he east side of the quadrangle to King William's ck was designed by Nicholas Hawksmoor, who ceeded Wren. The sculpture in the pediment over colonnade is representative of Nelson's victories double-page supplement).

View in Cloister.

CHARACTER AND DESIGN IN COTTAGE BUILDING.*

BY PROFESSOR S. D. ADSHEAD, M.A., F.R.I.B.A.

The Modern Village.

I THINK myself that the modern garden city, suburb, or industrial village should have generally the character of a rural village, but it is not the same, it is much larger, and consequently its social organisation is more urban. Moreover, the attitude of its occupants towards life generally is more artificial, and therefore more formal, and for these reasons, if for none other, it should reflect some of the best characteristics of a small town. My own view is that there is no need to stick to the casement cottage if the sash-windowed cottage is found to be constructionally more suitable; in fact, I am inclined to think that the sash window carries with it more of the sort of character that we ought to endeavour to embody in the newer and bigger housing schemes that the country is about to launch. The window is a very important feature, it is almost a controlling feature, in the design of a cottage, and the question of sash or casement is one deserving of first consideration in the matter of character and design.

And now let me say a word about the importance of preserving and incorporating some of the fine traditions of the past, and not only of the cottage, but of its background, its approach, and its surround. Suppose, for instance, it were found to be an economic proposition to construct roads of some entirely new material: suppose, for instance, with the universal use of the india-rubber tyres, it were found cheapest and most efficient to construct them with a surface of brown salt-glazed ware. Suppose garden fencing as a protection were found cheapest if constructed of thin concrete slabs and steel channel irons. Suppose, for the sake of argument, it were discovered that the cheapest method of constructing cottages was with a light steel frame covered with enamelled sheet-iron, that the best and cheapest doors and window-frames were those made with aluminium or papier-maché. Suppose these cottages had roof coverings made of thick strawboard and asphalte, laid almost flat. Suppose a garden village were built in this way as embodying all the latest inventions and the most up-to-date discoveries of science, with a dash of futurism thrown in. This would be an untraditional village, a very untraditional village. And suppose we went further. Suppose the people who occupied the village cut their clothes to conform to the latest requirements of hygiene and physical comfort regardless of the traditions of the past and personal feeling. Then, possibly, hats would be discarded, men would wear long hair, women would wear trousers, and all would wear tight-fitting garments to save cloth.

Then we would have an untraditional people, untraditionally clad.

But where would the artist come in? We must find room for the artist. The artist, having no use for tradition, would be a futurist, and, if my understanding of their methods is correct (their intentions I do not pretend to understand), then the clothing of the people would be primitive in colouring and in spots, checks, and stripes, and they would look like harlequins and clowns. Even their sense of humour might not be traditional.

Fantastic Futurism.

The shapes of the cottages would be fantastic. Perhaps in colour they would be white, and in their decorative treatment they might reveal their inner skeleton. This might be done by zig-zag, flow and intersecting lines.

This, then, is untraditional art, and it is what we some day see, but we cannot come to it all at o We should not feel comfortable if all at once we to attempt to live like this. No, there is one thing human nature likes better than the glorification of present and the future; it is to do homage to glorify the great things of the past. And it is n natural to build cottages that look like and remin of the cottages of our ancestors than it is to make t look like nothing on earth at all.

The Potency of Tradition.

The real point is that human nature assimilates ideas, and especially new ideas that stir up our dee emotions, but very slowly and only through periods of trial and time. And if we are to make new industrial villages comfortable and satisfy places to live in, they must embody the best tradit of the past. It is distracting enough to accept mod materials and methods and use them reasonably honestly without superimposing art systems that le us no room for expressing our deepest feelings, that remind us of nothing that we have ever know

But another and very practical reason for embo ing the traditions of the past rather than attemp to outline the future is that by so doing we are m more likely to express ourselves correctly, if, ind by any futurist system of decoration we can express ourselves at all.

Subtle thoughts and ideas can be better expres through the medium of an inherited language t through a language like Esperanto or mechan signs.

If our new housing scheme is to embody the cha ter of that period in village life when villages were about to take on the air of small towns, then must see that they embody the characteristics not of the village architecture of the period, but also of roads, hedges, gardens, and incidents of every k Character is expressed perhaps more in small thi than in great. The right character must be got using the right sort of curb stone, the right colou roadway, by planting the right sort of trees in gardens, and by attending to all those little mat which in the individual we sum up under the w "behaviour."

Before leaving this all-important question of ri character I should like just to refer to the kind working-man's residence which has come to described as the villa. The word villa so used come to mean a town cottage that has the pretenti appearance of a type of residence designed to occupied by a higher class. I do not know that means anything more than this. But it has natur followed that the author of the villa cottage, be imbued with such ambitions as these, is at the sa time only impressed with and usually only perpetu the worst features of the house to which he aspires.

I think I have now dwelt at sufficient length upon character and architectural treatment of the mod housing scheme. Let me say a word about the ne amenities that should be included in the arrangem of its roadways and in the disposal of the land u which the cottages stand. First, then, as to type roads. Generally, in the modern garden suburb village laid out on town-planning lines, there greater opportunities for creating interest than e there were in building developments in the past.

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* Conclusion of the sixth and last of a series of lectures delivered at University College, London.

t, this tendency towards the setting up of a great ersity of interests is positively dangerous.

Value of Scale.

have seen main streets through garden suburbs t are about half a mile long, exemplifying adapta- ns of all the features that are to be seen in the amps Elysées, Paris—the greatest avenue in the rld. Whilst our new village should be full of erest, and an interest that is ever sustained, care uld always be exercised lest the details get out of le. The use of the grass-bordered roadway has n greatly abused. That grass was allowed to grow he sides of the roads in olden times was to provide turage for cattle passing along a beaten track; the in object was to have some sort of a decent road— grass was there already. Now with the great rease in traffic and the comparative narrowness of total road width, the difficulty is not to keep the ss from covering the road, but to keep the road, or, any rate, bare places from overtaking the grass. nce any grass that we show in the modern housing eme, unless bordering very wide roads or unless anged for in roads, such as short approach roads ch have very little traffic upon them, needs to be y carefully protected, or it would disappear gether.

do not think that roads should have grass verges ess the minimum width of the verge is, say, ten , and this is very narrow indeed. But I have seen den suburbs where the enthusiasm for grass has n so unrestrained that grass borders have been nd that are only three feet in width. In this case grass looks more like an overgrown flower-bed or ewly made grave, and in no sense carries on the lition of a grass-bordered track.

Roads and Paths.

smund's Place, Hampstead, is one of the best mples I know of of a grass-bordered 16-ft. wide roach road. Then, as to the actual treatment of grass and path. In a narrow approach way like at Asmund's Place there is nothing nicer for a tway than a flagged path. In fact, the formation track through the grass is the only logical treat- t for a pathway along a grass verged roadway, ess the whole up-keep of the scheme is so highly ficial throughout, that narrow curbs are nissible to protect the edge of the grass, in which the grass-verged road will take on more of the racter of a well-kept parkway than of a rural lane. would be a great advantage if those concerned ne planning of a modern estate development were evise or provide a corrected definition of the ds, "parkway," "avenue," "road," "lane," eet," and "way." We have got dreadfully con- d in the use of these words, and in modern n-planning the diversity of lines of communica- has supplied quite a new opportunity for a better sification.

Gardens and Forecourts.

hen as to the gardens. To my mind the greatest ger that threatens the front garden of a cottage e ruination of its character by the planting of greens. I know of garden suburbs that, with a to keeping them always in a state of perfect eep, have been planted with masses of ever- ns, which always look respectable and neat.

vergreens always do look respectable, but they give a village more the character of a cemetery the character of a garden for a working man.

ne sort of bush to plant in a cottage garden is ilac, the rose, the syringa, the wild fuchsia, or flowering currant. These belong essentially to cottage garden.

ne size of a cottage garden should vary in rent localities. It will depend upon the tenant, the occupation upon which he is normally engaged, and upon the nature of the soil (some soils being much more easily tilled than others). The size of the garden will also depend upon the amount of allotment space that is provided throughout the village or small town. At Port Sunlight there are no back gardens, but large backyards opening on to allotments. I think that the best scheme is to provide gardens of various sizes to suit the requirements of different tenants, and also a certain number of allotments for those who have the time and inclination to look after a larger area than their own garden ground.

After all, the fruit garden, with its flowers and its bushes and its climbing plants; with its trellised walls, herbaceous borders, and little garden paths, is always a charm and a delight, even where the same cannot be said of the more uncertain works of man. And the garden can be made, if not always profitable, at any rate one of the readiest means of saving money in hard times. More fruit trees should be planted in cottage gardens.

The gardens at Bournville are excellently equipped in this respect. Here, at the ends of very long gardens, narrow orchards skirt the garden ground.

But nothing to the eye of the artist is more deserving of consideration and more significant of the character of a village than the garden gate and the garden fence.

Usually an expedient of the designer of a garden suburb has been to edge the garden with a post and chain, and this as a temporary measure of protection pending the growth of a quick-set hedge. The hedge is of course the most natural and one of the most beautiful of all protections, but whilst this is so, it is not always feasible.

The Garden Fence.

A simple wooden fence of pointed slats (especially if painted white), and other artificial fences, such as the circular wood bar fence with low rail—and even an iron fence if not of the cheap spike-and-rail type—have all a character that is of the cottage, and can be made to add to the charm.

Tree-planted Roads.

So far nothing has been mentioned about tree-planting in the roads and lanes; nothing about the treatment of open spaces. This in itself is a subject that would take a whole lecture to deal with adequately. Generally, however, I would say of tree-planting in street and elsewhere, that the treatment usually adopted in the modern development is too small in scale. By that I do not mean that the trees are set too close together (often they are not close enough); what I mean is that they are often planted where they would be best omitted altogether, and where they obstruct rather than frame-in good architecture. And generally we seem to think they have no other purposes than the bordering of avenues. We should remember that often they are seen to best advantage in masses behind the cottages if grouped on an open green. There are positions, too, where the artificial character of the surroundings suggest that they would be best if trained, pollarded, and clipped. And this brings me to the final point in my lecture—the question of the standard of upkeep that should be maintained.

Urban and Rural Differences.

As already mentioned, the industrial village of the future, the suburban housing scheme or the garden city, are necessarily much more artificial in character than is the rural village of quite a small population, whose inhabitants are for the most part agricultural labourers working on the land. Hence, to suggest in the architecture and planning of the village the avocations of its inhabitants, their normal occupation, and the kind of way in which they naturally live, its arrangement and finish should be more orderly and complete.

And, having regard to the more artificial appearance of the materials that are used to-day, the standard of upkeep must necessarily be raised somewhat above what we love to see in the rural village and the villages of yesterday.

But this does not mean that we are to fence off all our greens with park railings, build neat brick walls around all our gardens, convert all our roads and footwalks into asphalted tracks. It only means that the development should incline more to the character of a reasonably well-kept park than to that of a woodcutter's clearance or a cattle stray. And I hope that in saying this I shall not be misunderstood to mean that every yard of grass must have the appearance of a well-mown lawn, that all garden paths must be neatly bordered with geranium beds, and that we must needs perpetuate all those indications of respectable ugliness that are the heritage of a Victorian middle-class.

What I mean is that there is a stage in the artificiality of the treatment between the ugly decency of this and the beloved dilapidation of the village of the past: a dilapidation closely associated not with city operatives and with men who work in a mill or a mine, but with the land labourer and all the romance of the farm.

Cottage and House.

And let us always remember that in the modern development, whilst too rural an aspect suggests an affectation and an effect that is theatrical, and not real, on the other hand too hard and artificial a treatment is incompatible with the day-to-day life of the working man.

The working man's home should be a cottage, and although this word "cottage" has been travestied by the rich, despised by the shallow, and allowed to give place to the word "home" by those who should know better, still, the word "cottage," one of the most beautiful words in the English language, is the word that best describes the character of the working man's home.

CORRESPONDENCE.

Improvident War-building Policy.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Although every consideration must bow before the necessity of pushing our fight for civilisation against scientific barbarism to a successful issue, it is very questionable whether, in loading our parks and open spaces with vast temporary buildings, and in commandeering office blocks in active use in commerce, etc., for purposes connected with the war, the Government is pursuing the best course which foresight and economy would dictate.

The temporary buildings will be useless, and have to be destroyed and removed after the war, at an expense to be added to that of their erection, and the land they occupy will have to be set in order once more. The dislocation and later restoration of business routine caused by the sudden appropriation of premises and their fitting for new uses and later dismantling and refitting, of course, involves yet further loss.

Meanwhile, in close proximity to the governmental area, such as Pall Mall, Piccadilly, etc., as well as further afield in every quarter of London, one finds the completion of enormous blocks of buildings which would, if carried out, adequately serve the purpose, absolutely arrested.

Surely it would be more provident if some such arrangement as the following could be arrived at. Owners of appropriate property to be required to pre-war prices for completing the building of t premises, the Government to pay the balance du increased prices, and after providing the labour securing the materials to rent them for the dura of the war. Thereafter, apart from the remova adaptation of the Government fitments, they woul immediately ready for use in the great comme revival and struggle for supremacy which is boun ensue, and it would not be necessary to await reorganisation of the building trades before they w be erected and earning money for their owners. Th are already many new buildings lying completely and deteriorating in which one, two, or three fl need but little to make them ready for occupat Buildings could be completed as required, and me while used for Government offices, floor by floor.

It will, of course, be argued that it is impossibl procure labour and materials to complete s buildings. The answer being that a sufficient am of both is forthcoming wherewith to erect quant of temporary one-storey buildings of a substa character, spread over large areas, instead of on c pact permanently productive structures.

Prisoners of war and conscientious objectors well as Irishmen, should be set to work forthwit our brickyards, stoneyards, and quarries, cem works and foundries, to provide materials for buildi required by the Government and for no others.

Such a policy would meanwhile arrest the repo falling into disrepair and uselessness of the machin used in those trades, and incidentally prevent architects from going rusty.

FRANK L. EMANUE

[It would seem that the most vital argumen Mr. Emanuel's letter is contained in the last p graph. Rust is certainly corroding the hearts minds of men who, having been deprived (by S interference) of their normal means of earnin living, cannot find other employment; and ther reason to fear that much machinery inapplicabl munition work is mouldering in decay where it not been scrapped for war uses.—EDS. A. AND

The War Bond Campaign.

To the Editors of THE ARCHITECTS' AND BUILD JOURNAL.

SIRS,—A strenuous effort of business men to mote the sale of National War Bonds and Savings Certificates is to be made during the week in March.

Employers of labour are asked to adopt an ins ment plan (if they have not already done so) for purchase of War Savings Certificates, which been found to be so eminently successful.

The Hon. Organiser asks every employer arrange a meeting of his workpeople on Wednes March 6, at 12 noon (11.45 where luncheon ho fixed at noon).

The urgency of the matter in relation to vic should be explained to the workpeople, and t written slips prepared beforehand should be han round showing:—

1. The instalments which the employer is wil to accept.

2. Space for the amount of War Savings Ce cates desired by the employee.

3. Space for signature of employee.

If, therefore, the employees' investments in Savings Certificates, added to the employer's in National War Bonds, are registered on Thurs March 7, the enemy will learn the cause of strange silence of our industries between 12 n and 12.30 on the previous day.

WAREHAM SMITH,
Hon. Organiser, Business Men's Wee

WAR·BVILDINGS·SECTION

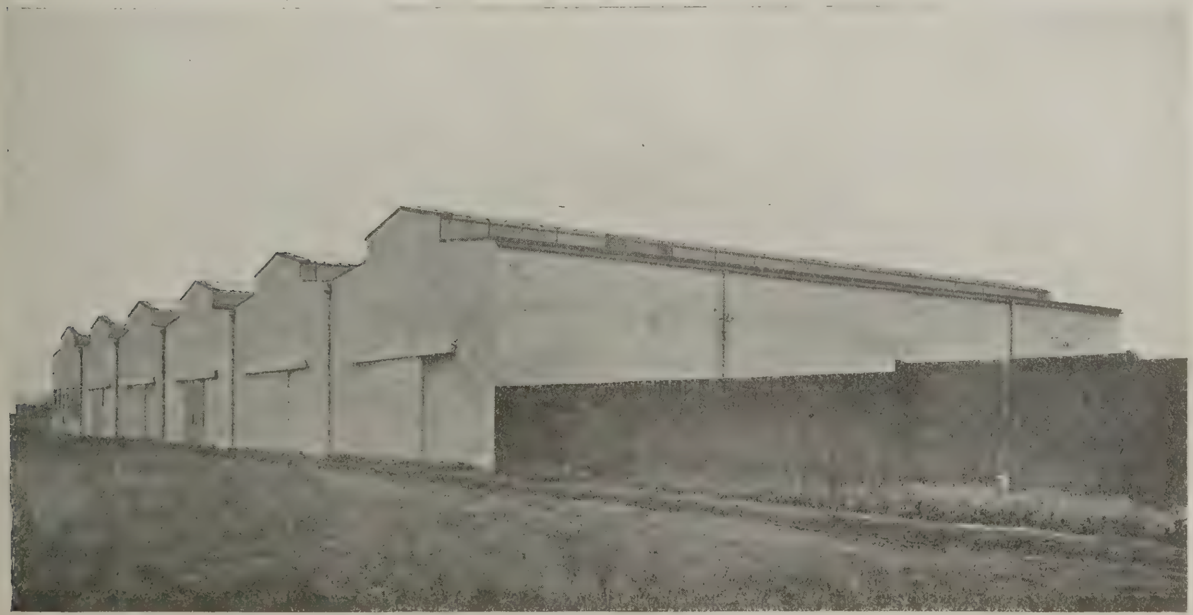
WAR-TIME FACTORY CONSTRUCTION.

E wise man knows that no single material is ideal for all purposes and ions. Reinforced concrete has a e of usefulness very nearly co-exten- with the entire building field, but it is o pretend that there are not circum- es where its use is ruled out by con- ations of cost and convenience. rally speaking, reinforced concrete is he material to use in single-storey ings, for in such structures it cannot ete in respect of economy of first cost brickwork for walls and steelwork in .

ere is a very large range of struc- , however, in which the industrial tions carried on require merely nd space and a cover from the weather —such buildings, for instance, as foundries, machine shops, engine sheds, screening houses at collieries, stores in shipyards, etc. Where ground is cheap, and protection from the weather is all that is desired, owners will undoubtedly continue to use buildings constructed of light steel framework with galvanised iron or some other temporary device for clothing the frame. But the trouble with buildings of this class is to get a satisfactory walling.

A kind of walling and roofing, which, while having the advantages of corrugated iron, such as lightness in weight, convenience in use, economy in cost, and saving in space, is free from its disadvantages is known as Hy-Rib. A building so built is one which may be considered as being practically permanent, for even the Local Government Board have allowed twenty years' repayment period for loans granted on structures built with Hy-Rib. This reinforcement is virtually no more costly than corrugated iron, and in some districts it is less costly, and it has always the advantage of requiring no attention and no maintenance.

With this article we illustrate a typical factory. The first illustration shows the external appearance of the building, and it will be agreed that there is little room for criticism of the general effect. The method of construction is to erect a steel skeleton of appropriate design, such, for example, as is shown in the illustration on

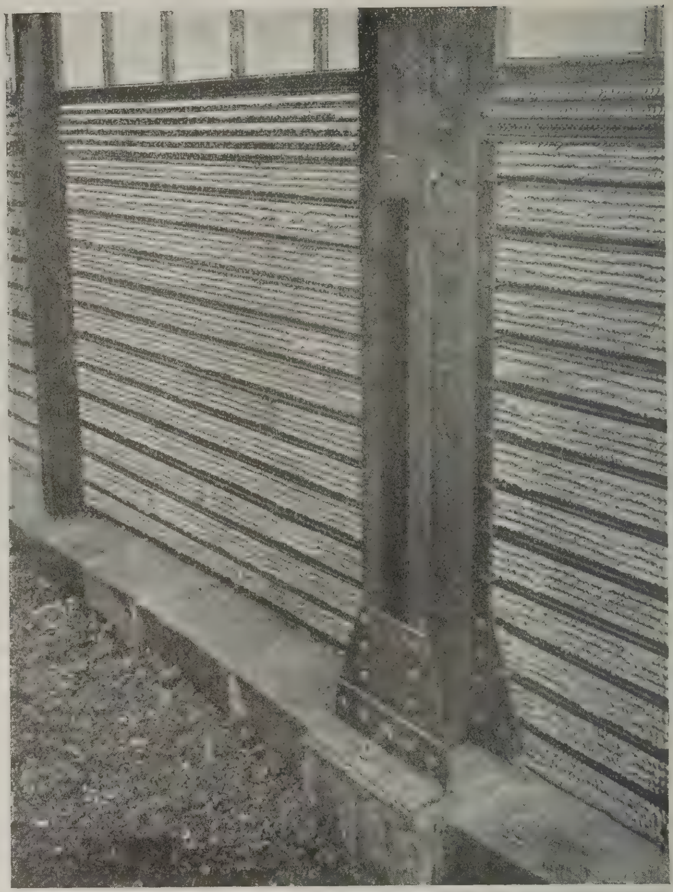


ENGINEERING SHOPS, TRAFFORD PARK, MANCHESTER.

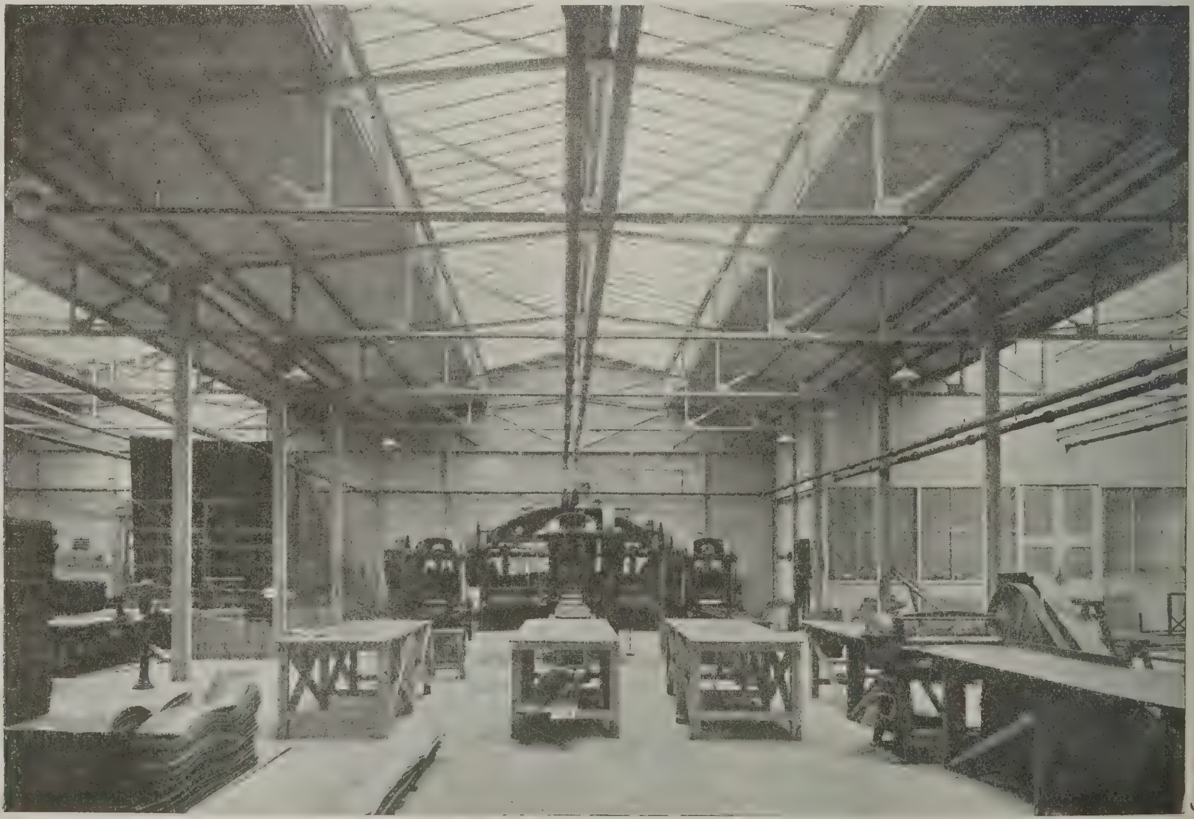
the opposite page, where the skeleton frames are erected ready for the reinforcement. To form the wall this is attached to the stanchions by means of special clips and thereafter plastered with 3 to 1 cement plaster both sides, to produce a wall 2 in. thick.

The detail view on this page shows the Hy-Rib attached to the stanchions and the appearance of the interior face after the external coating has been put on. The splendid key given by the plaster will be noticed, and it is clear that when the internal plaster has been applied an absolutely homogeneous wall is the result. There is no question of two unconnected layers sandwiching a steel sheet. What is produced is a solid 2-in. concrete wall reinforced with a highly efficient type of reinforcement. It is usual to waterproof the external finishing coat with an admixture of waterproofing preparation, ensuring a bone-dry interior. The roof of the building is also constructed of Hy-Rib, which acts both as reinforcement and centering. The material is laid on the purlins, and the cement concrete poured on. without any need for timbering underneath.

The cost of the upkeep of a Hy-Rib building is practically nil. The walls, which are, as it were, of one sheet throughout, and finished smooth, are peculiarly resistant to weather wear. Concrete cannot oxidise, and, in the second place, the absence of joints means that water cannot lodge in any crevice, and consequently the frosts of winter cannot exercise their disintegrating influences on the surface. The waterproofing closes all pores. It is an unquestionable fact that exposure and the passage of time do definitely improve a concrete wall of this kind. Anyone who has carefully examined an old concrete dock wall knows how time has hardened and improved the concrete.

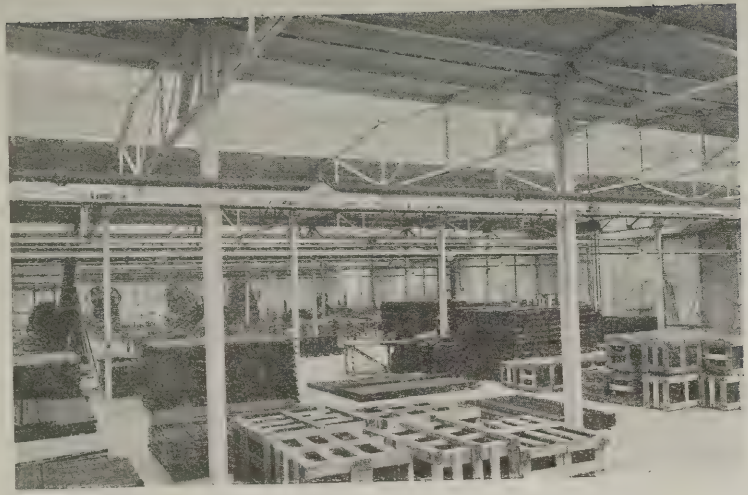


DETAIL SHOWING METHOD OF ATTACHING WALL REINFORCEMENT TO STEEL STANCHIONS.

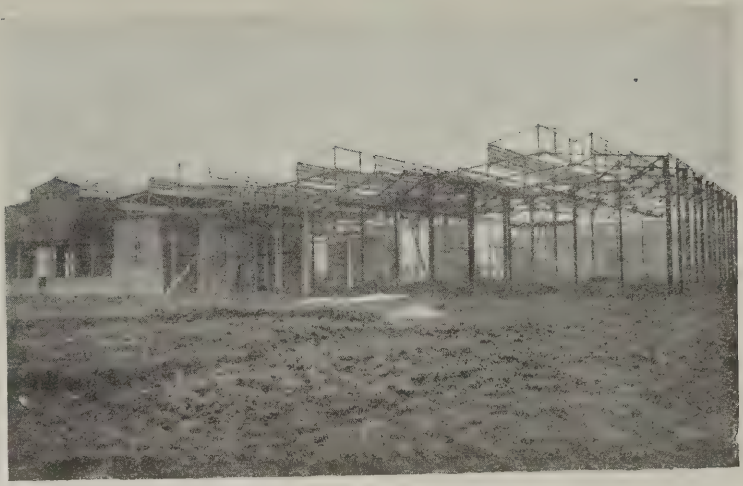


INTERIOR VIEW OF ENGINEERING SHOPS, TRAFFORD PARK, MANCHESTER.

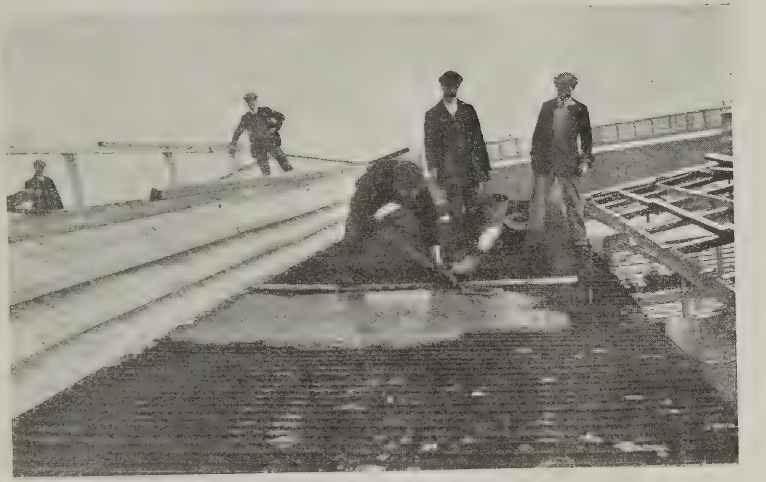
(Note even distribution of light.)



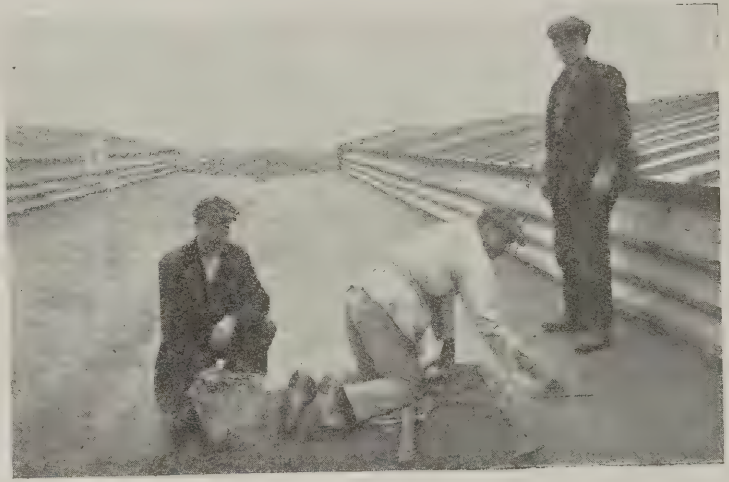
View of well-lighted Interior.



Steel Framework ready for Fixing of Reinforcement.



View of Roof in Course of Construction,



Applying the Finishing Coat of Cement,

ENGINEERING SHOPS, TRAFFORD PARK, MANCHESTER.

THE EDUCATION OF THE ARCHITECT.

The letter on this subject addressed by Mr. Lionel B. Budden, M.A., of Liverpool University, to the Journal of the R.I.B.A., and reproduced in our issue of January 2, page 8, brought forth a reply by Mr. Arthur Keen, to which Mr. Budden has made the following rejoinder. We should have liked to print Mr. Keen's letter, but space is strictly limited, and Mr. Budden's rather long letter reproduces the substance of Mr. Keen's contentions:

School of Architecture, University of
Liverpool.
January 31, 1918.

Dear Sir,—I do not know whether Mr. Arthur Keen's letter on "The Education of the Architect"—published in your issue of January—may be regarded as expressing only his own personal opinions, or whether it is to be considered as a semi-official *démarche* on behalf of the present Board of Architectural Education. But in either case it clearly demands a reply.

I propose to take Mr. Keen's principal statements point by point and to answer them. Before doing so I would refer such readers as are interested to my original letter and to Mr. Keen's, published respectively in the December and January issues of the "Journal." They will then be able to judge for themselves:

(i) How far Mr. Keen may be held to have dealt with the questions raised by me in the first instance, and

(ii) The degree of accuracy with which I have represented his views in the passages below.

> The purpose of the Final Examination is to test a man's qualifications for practising as an architect.

This cannot be said to be achieved under the present system. A group of practitioners sit in London and conduct relatively brief and arbitrary tests. Candidates come before them from all parts of the United Kingdom. The examiners know nothing of the circumstances of the very varied training of those candidates; they have no direct knowledge of their abilities. All they know is that a professional Star Chamber, called the Testimonies of Study Committee, has at one time or another approved four designs submitted by each candidate; and that that Committee was itself also ignorant of the nature of the education of the authors of the designs and of the value which could legitimately be placed upon their work. Thus equipped, the examiners, apparently by a process of divination and clairvoyance, detect how much of any individual's performance in the Final is the product of cramming or may be ascribed to luck, and how much is evidence of genuine competence. A remarkable feat, but one fraught with over much risk for the person most interested in its successful execution. So conducted the Final Examination may prove many things—but not a man's qualifications for practising as an architect.

> The Final R.I.B.A. is a professional, the Intermediate a non-professional examination.

A false theory of architectural education is here proclaimed, the old Victorian antithesis of theory and practice is implied. So long as this sectional view of the subject obtains, so long shall we fail to secure efficiency in the training of the profession. The work of education cannot reasonably be divided into two compartments—one "non-professional," partly controlled by experts who teach and know the capacities of their students; the other "professional," in the hands of amateur educationalists who merely examine and are necessarily without such essential information.

> At present the number of professors or directors of schools who are voting-members of the Board of Architectural Education is less than one-third of the total effective membership; even if the schools dealt with the entire training of the architect, this would be a sound arrangement; but school training is only a beginning, and therefore the Board should consist mainly of those who have had long experience of practice.

In other words, empiric knowledge is to be considered as of more importance than scientific, and the exponents of empiricism are to dominate the final stages of qualifying education under all conditions.

Architectural education has not developed upon these lines in France or America, nor could it properly so develop anywhere.

It may be good polemics to represent the expert educationist as a person imperfectly qualified to deal with concrete issues, but I submit that it is at the least a disingenuous line of argument to take. An extensive practical experience is not the exclusive privilege of architects who do not teach. Professors and directors of schools are normally free to undertake private work, and do so, often upon a large scale. Mr. Keen cannot be unaware of that fact. The head of a school of architecture who has not sufficient practical knowledge to justify his acting as examiner for the R.I.B.A. Final must be in a condition of very remarkable ignorance.

To deny ultimate educational powers to architects who both teach and practise, and to confirm in possession of such powers those who perform the latter function only, cannot commend itself to an impartial judgment.

> The Testimonies of Study Committee is a strong one and comprises some of the best-known men in the profession. To put the designs made as Testimonies of Study under the control of the School Professors would be wrong. The designs form part of a professional examination and should be judged by practising architects.

Mr. Keen is in a better position to estimate the strength of the Testimonies of Study Committee than I am. For he doubtless knows the names of its members; whilst I, like the rest of the profession, who lack private sources of intelligence, do not know.

Whatever may be its strength, however, it is the by-product of an obsolete system, and no confusion of the issue, by invidiously attributing to its members "professional" qualities, can justify its existence.

> It would be useful to inform students of the reasons why their designs are rejected: but this course has been seriously considered and felt to be impracticable.

It would be more than useful—it would be sensible and just; and there would appear no explanation of this feeling of impracticability which does not reflect either upon the Testimonies of Study Committee or upon the Board of Architectural Education, or upon both if both entertain it.

> Students who have felt aggrieved by the decisions of the Testimonies of Study Committee have been interviewed, and the reasons for not accepting their designs have been explained to them.

One would like to know the precise number of the appellants: the ratio of th number to the total body of rejects in the Testimony of Studies scheme ca into operation: and finally the percenta of inquirers who travelled to London fr the provinces in order to satisfy themsel that justice had been done in their cases.

> It is probably a bad thing that the Scho seem impelled to work with one eye the Institute Examination, but as thi actually the case the examination sho be so shaped as to exert the sound possible influence on education.

No examination conceived and dire by a centralised unrepresentative a mainly non-teaching body can under circumstances exert other than a bad fluence on education.

The remedy does not lie in tinkering w the examination, but in its abolition, i reconstitution of the Board of Archi tural Education, and in the establishm of a decentralised examination conduc through the instrumentality of the com tent authorities at the teaching centre

When the granting of qualifying degr is on certain terms delegated to authorities—as, in the case of the pro sion of medicine, it is by the Bri Medical Council—then there is guarantee that the qualifications are value. An institute merely operat examinational machinery in the me polis can offer no equivalent assuranc

> To form the Board of Architectural Edu tion into a kind of administrative b for the Schools would be an error. individuality of the Schools is a valua asset, and nothing should be done impair it or to weaken the spirit of e lation that should exist between various schools.

Presupposing that the Institute util the schools to prepare candidates for profession and to control admission to and presupposing again that the Boar Architectural Education were reconstitu upon a logical representative basis, functions of the Board would include:

1. The setting up of a certain minim standard for the Intermediate and F Examinations and the enforcement of standard.

2. The appointment from its own m bership of external examiners wh business it would be to attend and assis the examinations and to report to Board.

The Board would, in short, possess effective authority and would act as General Council of Medical Educa acts. This, so far from impairing the dividuality of the schools or weaken their spirit of emulation, would have cisely the opposite effect. The school medicine in provincial cities are fam each one of them, though conforming general scheme of education, has dis guished itself in some particular bra or branches of medicine or surgery. much cannot be said for the school architecture—nor ever will be, as long existing conditions prevail.

The great strength of medical educat the confidence which it inspires, and prestige which its gives are largely du the broadness of its basis and the e tial unity of its conception. It is not m pulated by a London club, nor are professors considered incompetent to plete the processes which they initiate

Lest Mr. Keen should think it neces to point out that medicine and archite are different subjects, let me say that methods which most directly give effe e fundamental principles of all qualifyg education should be as applicable in e sphere as in the other.—Yours, etc.,

LIONEL B. BUDDEN (A.).

P.S.—As Mr. Millard's proposal (reated and amplified by Mr. Keen), that school directors should confer and lay eir conclusions before the Board of chitectural Education, did not seem to ve evoked any response, I had taken on myself to write to Professor Dickie d to suggest to him that he should ine the heads of the schools at an early te to a conference at Manchester—the st generally convenient centre for the rpose. I understand now, however, that Board is itself taking steps to summon ch a conference.—L. B. B.

IR ASTON WEBB ON THE RE-PLANNING OF LONDON.

Sir Aston Webb, in an address before Royal Geographical Society, exunded the London Society's map showg proposals for the improvement of eater London. There had been many portunities and efforts in the past, he d, for the adoption of a great and comte scheme for the improvement and autifying of the metropolitan area, but to the present every such attempt had ly ended in piecemeal schemes.

Many efforts had been made to deal th the main trunk roads into London, t progress in this direction had been w and ineffective, and the roads were l without any central authority to direct control them. Street improvements d been carried out in much the same cemeal and haphazard manner, hough some splendid improvements, ch as the Thames Embankment from estminster to Blackfriars, the construcn of the Kingsway, the widening of the rand and Fleet Street, had been notable odern achievements.

The railway companies had carved and cked the surface of London at their n sweet will, and had thrown bridges ross the Thames that were a "disgrace us and our splendid river." The inease of electrically driven omnibuses d tramcars, and overground and underound tubes, had not diminished the oblem of road congestion and the diffities of locomotion and transport. A affic Board was set up in recent times deal with the improvement of the main ads out of London. They issued a luable report in 1914, when the departent was suspended.

The London Society had now drawn up map showing the scheme proposed by Traffic Branch of the Board of Trade, gether with the society's own proposals, t only in regard to roads, but also parks, rkways, waterside reservations, open aces, and other improvements. The ap measured 15 ft. square, and dealt th an area of some 600 square miles. the conclusion of peace it was intended at this plan should be exhibited as the ciety's war contribution towards the tter ordered development of Greater ndon in the future. It was proposed to culate reproductions of the map on a aller scale for those of the public inested in the scheme.

It was claimed for this scheme that it ntained practical proposals such as had en generally agreed upon by local thorities as meeting needs which the overnment had realised as necessary. ditional parks in the north-west and uth-east districts and parkways and waterside reservations to link up present open spaces were among the proposals of the society, who suggested the formation of a Park Commission on the American lines to deal with this in detail, with power to levy a small rate on adjacent property.

The problem of the railways and better inter-communication formed another part of the scheme, as did also the desirability of forming an embankment on the south side of the river downwards from Westminster to beautify the upper and lower reaches of the river, and make the riverside more available for business and pleasure. The question of improving the markets and their terribly congested approaches was another feature of the scheme. The Green Park was suggested as a suitable site for a "beautiful garden, with flowers, fountains, and terraces, after the fashion of the Tuileries Gardens in Paris," and it was also proposed that the high railings which at present exist around some of our parks should be set back from pavements, leaving the grass and trees untouched.

One appalling trouble of London was the smoke and dirt, but Sir Aston Webb expressed the opinion that London without smoke ought to be now possible by the substitution of electricity and petrol for coal, gas, and steam. Fog was decreasing, and those whose duty it was to analyse it stated that there was a marked yearly decrease of carbon in it. In conclusion Sir Aston Webb referred to the placing and planning of public buildings and monuments, the treatment of trees in the streets, and the placing of lamp standards down the centre of streets, which was better for fast traffic. The whole of his argument was in favour of the laying down of a general scheme instead of doing bits independently one at a time.

OBITUARY.

Professor Charles M. Robinson.

Many in England will regret to hear of the death of Professor Charles Mulford Robinson, who occupied the Chair of Landscape Gardening and Town-planning at the University of Illinois. Professor Robinson was one of the earliest writers in the English language to deal with the subject of the improvement of towns and town-planning, and his book on the subject was the chief available guide and inspiration for some of the earlier workers in the town-planning movement in this country, who feel themselves under a considerable debt of gratitude to Mr. Robinson for his pioneer work. His charming personality, too, made a lasting impression on those fortunate enough to meet him when he attended the Town-Planning Conference of the Royal Institute of British Architects in October, 1910.

Mr. James Bruce, F.R.I.B.A.

The death has occurred at his residence, 25, Mayfield Road, Gosforth, of Mr. James Bruce, architect. Mr. Bruce was a member of the Northern Architectural Association for a long time, and for some years acted as honorary librarian. Until a few years ago he was in partnership with the late Mr. H. G. Badenoch, the firm being known as Badenoch and Bruce, and they were responsible for a great deal of work in the district. Mr. Bruce had travelled abroad considerably. He possessed a unique and wide knowledge of architectural books, and his services were much sought after and readily given to architectural students. Mr. Bruce was sixty-one years of age, and unmarried. He had not been well for some time, but so recently as a fortnight ago he attended a meeting of the Northern Architectural Association, and he had been at business until quite recently.

Mr. John Clarkson.

We regret to announce the death, in his eightieth year, of Mr. John Clarkson, at his residence, 13, West Hill, Highgate, on February 5. Born on December 17, 1838, he was educated at Bedford School, where he obtained an exhibition in 1854. He was articled to Mr. F. W. Porter, of 16, Russell Square, and remained with him after his articles until 1863, in which year he commenced practice at 28, Great Ormond Street with his brother, Samuel Flint Clarkson, and on the retirement of the latter continued the partnership until his death with his brother William Clarkson, at the same address. In 1878 he was appointed District Surveyor of Poplar, retiring from the post in 1914 at the age of seventy-five. He was elected Associate of the Royal Institute of British Architects in 1869 and a Fellow in 1889, and was made a Fellow of the Surveyors' Institution two years later. Mr. John Clarkson was an acknowledged expert in light and air cases, having arbitrated in several prominent law suits.

HENRY SAXON SNELL PRIZE, 1918.

The Henry Saxon Snell Prize was founded to encourage improvements in the construction or adaptation of sanitary appliances, and is to be awarded by the Council of the Royal Sanitary Institute at intervals of three years, the funds being provided by the legacy left by the late Henry Saxon Snell (Fellow of the Institute).

The prize in 1918 will consist of fifty guineas and the Medal of the Institute, and is offered for an essay on "Suggestions for Improvements in Apparatus and Appliances for Dealing with House Refuse."

The essay to include a description of practical methods for:

(a) Reduction in the quantity of refuse in the house.

(b) Destruction of refuse in the house.

(c) Utilisation on the premises or sorting for utilisation away from the premises.

(d) Temporary retention on the premises.

(e) Methods of collection from the premises, including the construction of collecting vans.

General Conditions.

1. The essay to consist of not more than 5,000 words, to be typewritten on foolscap, one side only, and to be illustrated by drawings or sketches.

2. Two competitors may combine in sending in an essay and drawings.

3. Essays must be delivered on or before October 1, 1918, addressed to the Secretary of the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, and the following points must be observed:

(a) The essays to be submitted without the name of the competitor.

(b) To bear a motto, legibly marked on the right hand lower angle of the first sheet.

(c) To be enclosed in an envelope, bearing the words "Henry Saxon Snell Prize," and the competitor's motto at the right hand lower angle, and to be directed to the Secretary of the Royal Sanitary Institute.

(d) To be accompanied by a letter containing the competitor's name and address, which is to be enclosed in a separate envelope, sealed with a blank seal, and having on the outside "The Henry Saxon Snell Prize," and the same motto as attached to the essay submitted.

4. Should none of the essays be considered of sufficient merit or importance to deserve the prize offered, the Council reserve the right of withholding the award.

5. In the event of two essays being of equal merit, the prize may be divided.

6. The essay or essays to which the prize is awarded are to become the property of the Institute.

Should the Council decide to publish the essay or essays to which the prize is awarded, notice will be given to the competitor or competitors in order that patent rights may be secured, if desired, for any of the appliances mentioned in the essay or essays.

7. The carriage of the essays to and from the office of the Institute, and all expenses incidental thereto, must be paid by the competitor. Unsuccessful essays will be returned on application, on the production of a formal demand within a period to be specified after the close of the competition.

8. Due care will be taken of all essays, but the Institute will not be responsible for any loss of, or damage to, them while they remain in its keeping.

NEWS ITEMS.

French Honours for an English Architect.

By his unanimous election as "Membre Correspondant de l'Institut de France," Mr. John W. Simpson, F.R.I.B.A., is the recipient of the greatest honour the Académie des Beaux-Arts can bestow on a foreign architect. An American painter and an Italian sculptor were elected at the same time.

St. Bartholomew's, Smithfield.

The history and architecture of the Church of St. Bartholomew-the-Great, West Smithfield, will be explained on Saturdays, March 16 and 23, at half past two, preceded by an organ recital at two o'clock. No tickets are required and no charge is made for admission to the cloister and crypt, but a collection will be made for the restoration, which is still in progress.

Professor Pite on Town-planning Ideals.

Professor Beresford Pite, in his fourth lecture on town planning at the Manchester City Art Gallery on February 15, said in the Low Countries the growth of international commerce was discerned in municipal splendour, the lamented Cloth Hall at Ypres being the greatest commercial, as well as civil, monument of the Middle Ages. The town-halls of Belgium, situated in ample market places, indicated in town-planning that a new commercial era had compelled recognition. Schemes for fanciful cities had some vogue, and were experimented with in the eighteenth century in France. Paris succeeded Rome as the European capital, and its development, begun under Louis XIV., was continued on constantly improving lines until the modern era and the administration of the great Prefect of the Seine, Baron Haussmann. America remains a land of hopes for the town-planner, some partially fulfilled, others rising to the great opportunities presented by wealth guided by public spirit.

The Soane Museum.

It will be noted with pleasure that the Curator of the Soane Museum has caused to be printed on postcards a series of excellent illustrations relating to the Museum and its contents. Comprised in the series of fourteen cards are a view of the front of Soane's house, another of the "Tivoli Corner" of the Bank of England, several interior views of the Museum, and photographs of many of the chief objects in the Soane collection, such as, for instance, the frieze and vases that belonged to Robert Adam, and the Flaxman original models. Postcards, travelling far and wide, should be an excellent means of extending the influence of the Museum, and they will be no doubt particularly welcomed by architects serving with the forces. We are informed, with respect to the Museum, that a new Students' Room on the ground floor has been allotted for the purposes of architectural sketching and drawing from the unique collection of originals and casts from the antique. Special facilities are given to students of the Museum on application to the Curator.

Edmonton's "Dug-outs."

Edmonton is building a series of raid shelters, and, in three months, expects to provide sufficient for the needs of all its inhabitants. The Government has supplied bags, the local council has found an excellent sand supply in the gravel pit at their sewage works and has furnished cartage, the council's engineer and surveyor, Mr. Curtis Brown, has prepared plans, and has furnished the organisation and supervision, and the public have voluntarily undertaken the manual work. Mr. Brown told a representative of the "Daily Chronicle" something of what has been accomplished. Between twenty and thirty shelters are available, and other methods adopted are the following: Private gardens, in the proportion of one to every five families, have had "dug-outs" made in them, and these have been protected by double layers of sandbags, raised round the entrances and wherever necessary to make them quite safe from everything except direct hits. An old railway carriage has been covered with a strong roof, and is now a quite comfortable shelter for about thirty people. An army pensioner provided plans for a third shelter, and a fourth has been made by the utilisation of an old brick building in the Jews' burying ground.

COMING EVENTS.

TUESDAY, MARCH 12.

Institution of Civil Engineers.—An exhibition of cinematograph films, illustrating water-power works in Canada, will be given at 5.30 p.m. by professor J. C. McLellan, acting on behalf of the Canadian Government.

WEDNESDAY, MARCH 13.

Royal Society of Arts.—M. Paul Lambotte, Directeur des Beaux-Arts au Ministère des Sciences et des Arts de Belgique, on "Ypres and other Flemish Cities Before and Since the War" (in English), illustrated with lantern slides from unpublished official photographs, at 4.30 p.m.

THE R.I.B.A. RECORD OF HONOUR: FIFTY-SECOND LIST

The following lists are taken from the current issue of the R.I.B.A. Journal:—

Fallen in the War.

Rogers, 2nd Lieut. Cecil Walter, Quee Royal West Surrey Regiment, Associat Died of wounds, December 28, 191 Aged twenty-eight.

2nd Lieut. Rogers was educated King's College School, received his pr fessional education at the A.A. Day a Evening Schools, was articled to Mess Warwick and Hall, and was an assistan their office when war broke out. He join the Artists' Rifles in September, 1914.

Quekett, 2nd Lieut. John, M.A., F.S.A Black Watch. Wounded and repo missing last July; his body has sin been found and interred.

2nd Lieut. Quekett was a pupil of t late Sir Thomas Drew.

Gutteridge, 2nd Lieut. Richard Howar Queen Victoria's Rifles, Associat Killed in action October 1, 1916, France.

Bell, Lance-Corp. Edgar Alan, Staffor shire Regiment. Student. Died wounds, January 4.

Lance-Corp. Bell, when war broke o was in the office of Colonel E. A. Ki (A.), of Leeds, and was a student of t Leeds School of Art. Being in the Yor shire Hussars, he was mobilised in Augu 1914, and was sent to France in 191 Transferring to the Staffordshire Re ment, he was wounded in June, 1916, a again in May, 1917, fatally.

Military Honours.

Brown, Lieut.-Col. John, Northampto shire Regiment, Licentiate (of Nort ampton), who has been twice mention in dispatches, in connection respectiv with the evacuation of Suvla and t operations in Egypt and Palestine c minating in the first battles of Gaza, h been awarded the D.S.O. He is al the recipient of the Russian Order of Anne, with Swords.

Ross, Corpl. Hugh A., of the To Section, H. 2, B.E.F. (A). Mention in Sir D. Haig's dispatches, Dece ber 17, 1917.

Keys, Captain P. Hubert, Royal Engine (A.). Mentioned in dispatches, Dece ber 17, 1917. Awarded Military Cr for gallantry in the field.

Barrowcliff, Captain A. M., B.A., Stude Awarded the Military Cross in Augu 1916.

Pigott, Lieut. (Acting Capt.) R. Mou ford, R.E. (A.), serving in Palesti Mentioned in dispatches, December 1917.

Serving with the Forces.

Intimation has been received that t following are serving, bringing the to to 79 Fellows, 536 Associates, 333 Lic tiates, and 300 Students.

FELLOW.

Chatterton, Fredk.; Lieut., Staff Director of Works, Egyptian Expe tionary Force.

ASSOCIATES.

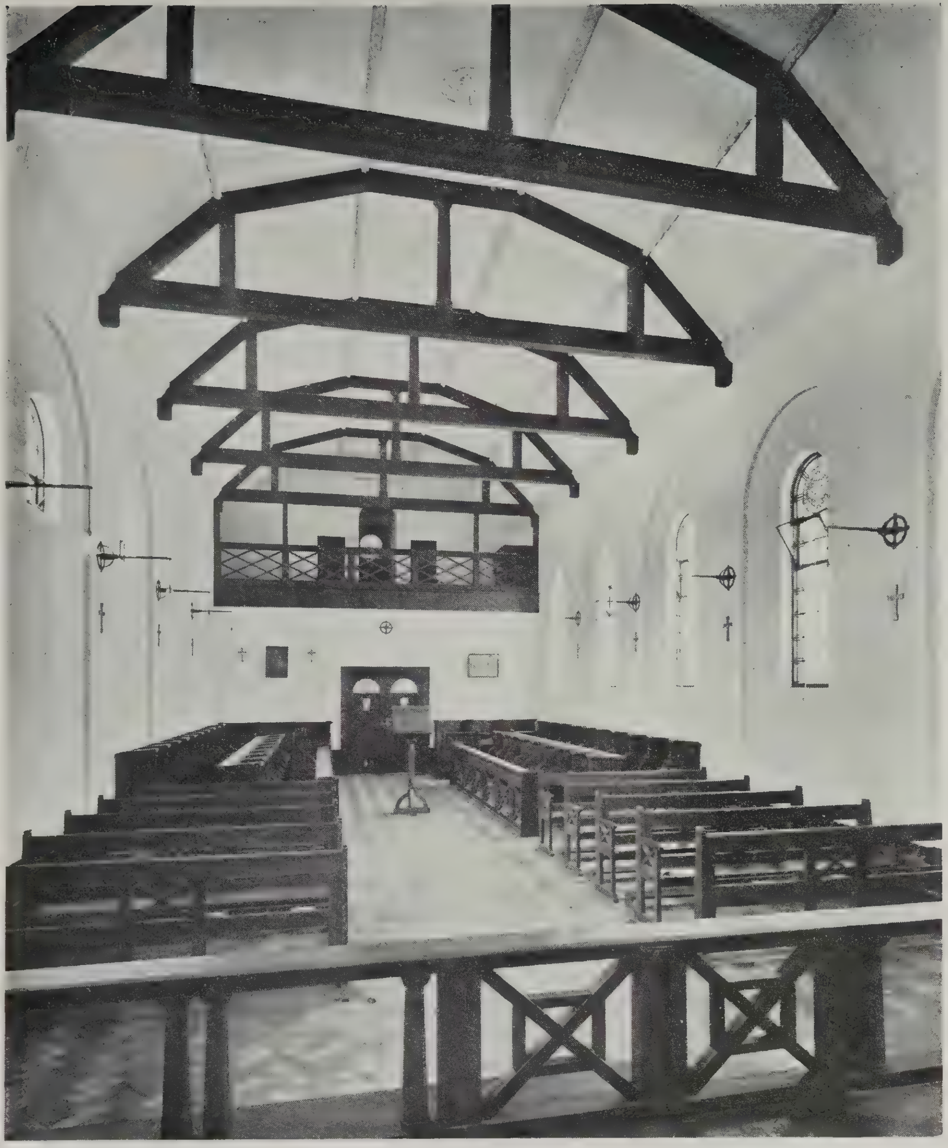
Clarke, J. D.; Lieut. R.N.V.R.
Vinden, G.: 2nd Lieut., Royal Enginee
Thompson, C. W. W.; 2nd Lieut., R.

LICENTIATES.

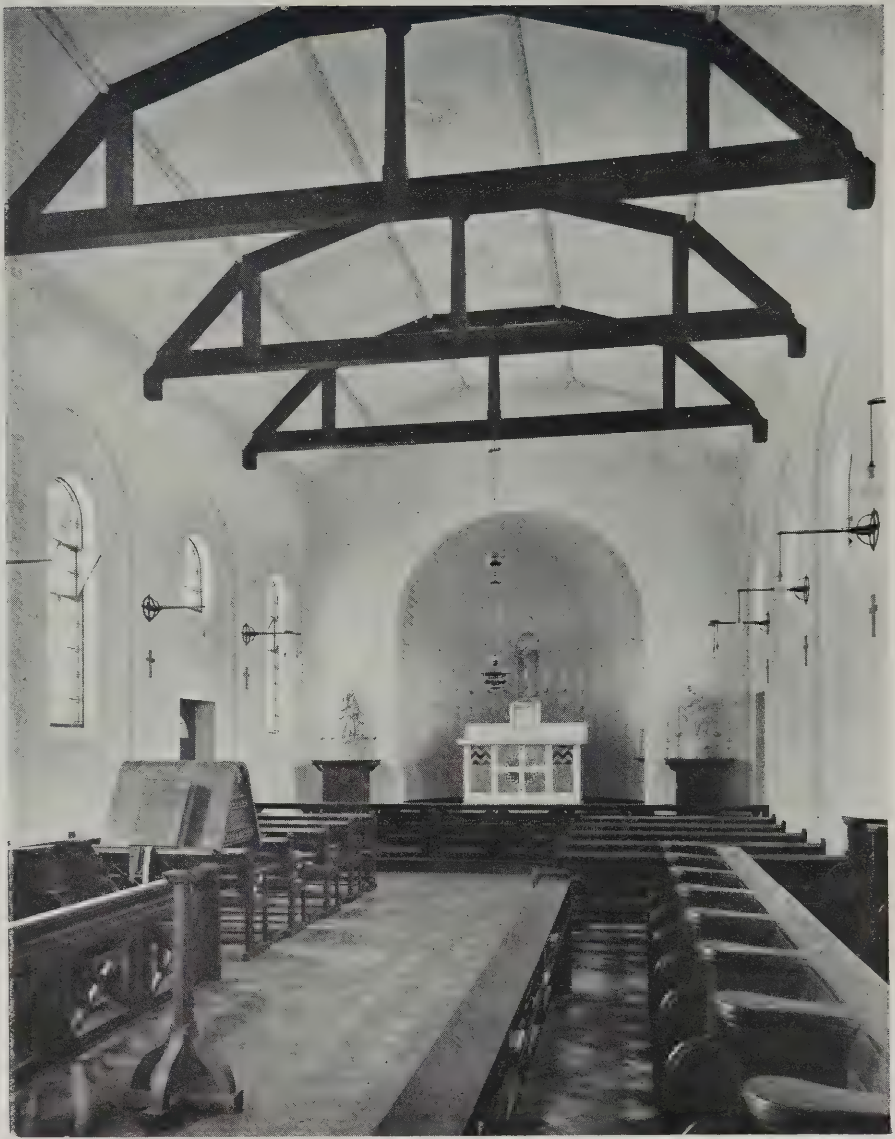
Baker, H. G.; 2nd Lieut., R.F.C.
Masey, F. W.; 2nd Cape Corps.

STUDENT.

Francis, B. T.; R.N.A.S.



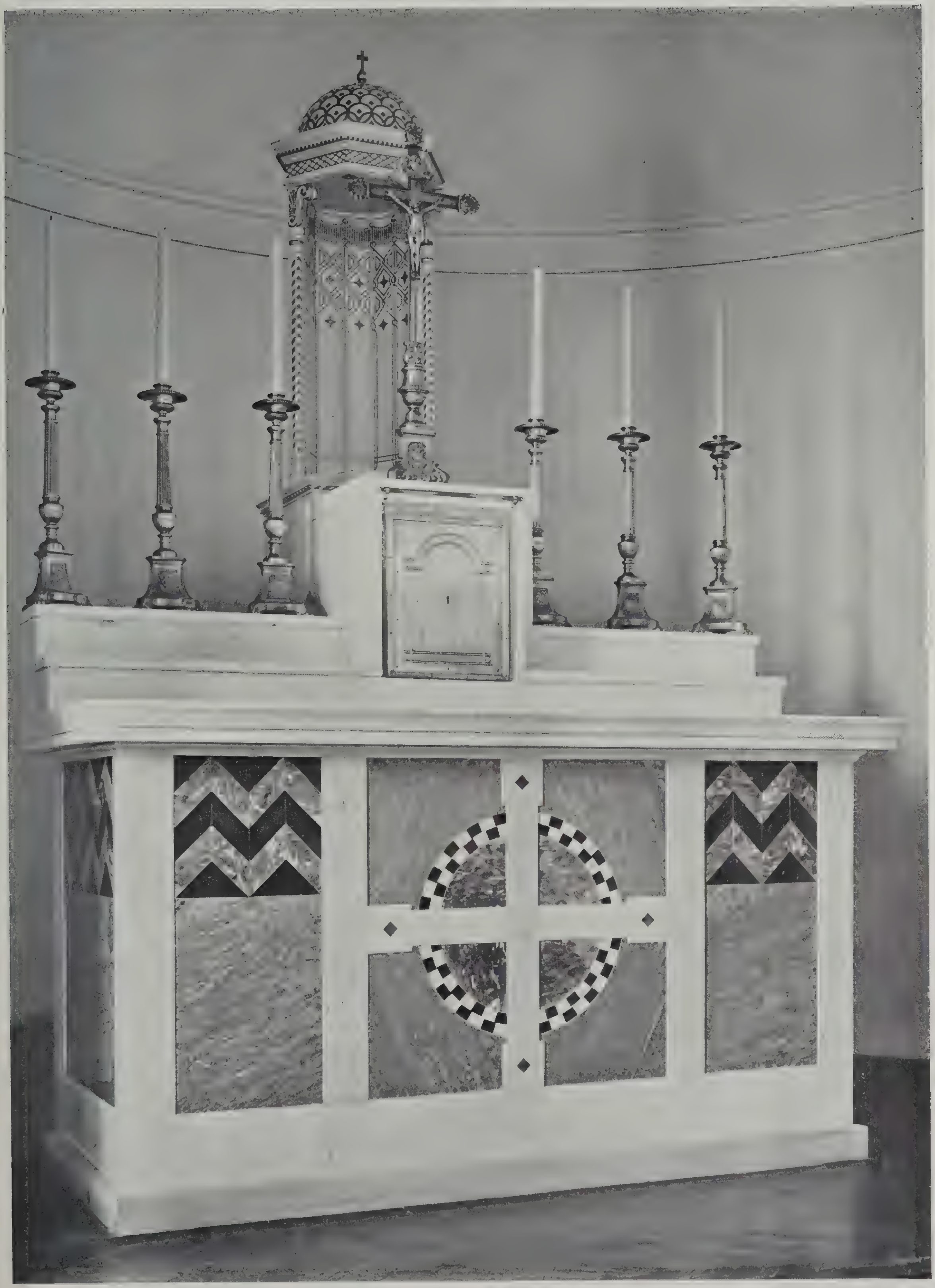
Interior of Chapel, looking East.



Interior of Chapel, looking West.

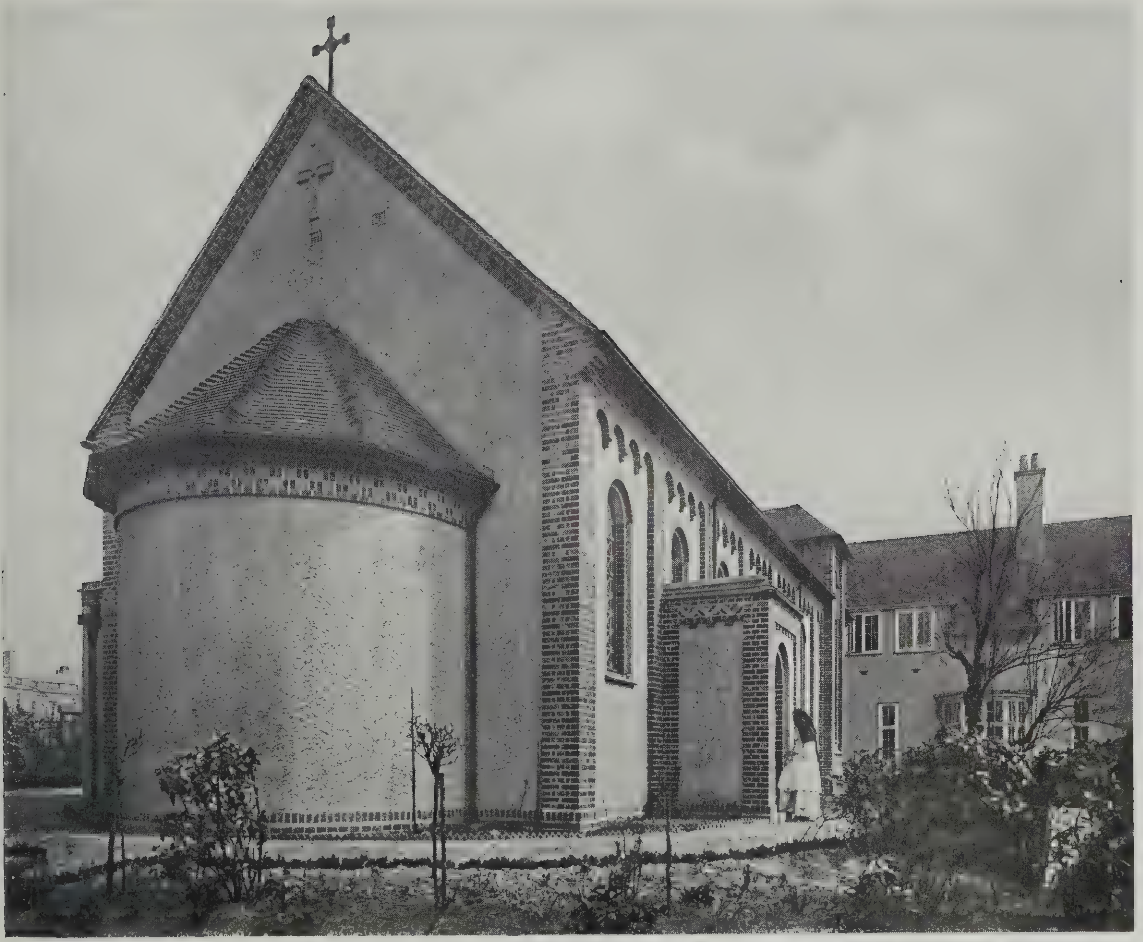
CURRENT ARCHITECTURE (SERIES V.). I.—ST. AUGUSTINE'S PRIORY, EALING, LONDON.

PEACOCK, BEWLAY, AND COOKE, ARCHITECTS.

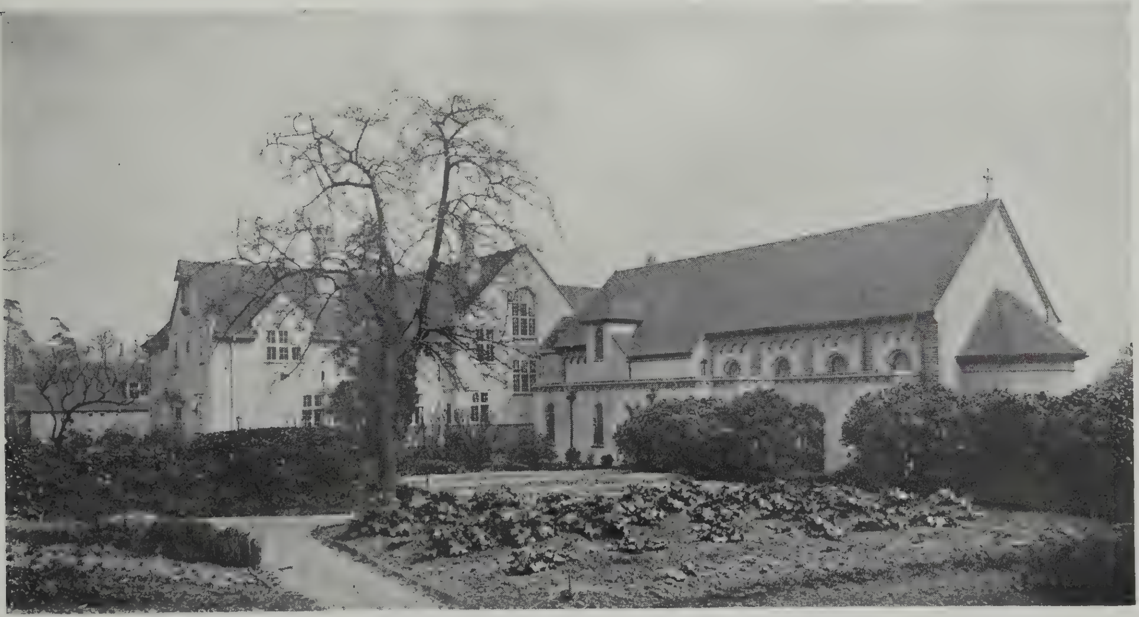


CURRENT ARCHITECTURE (SERIES V.). II.—ST. AUGUSTINE'S PRIORY, EALING, LONDON: ALTAR IN CHAPEL.

PEACOCK, BEWLAY, AND COOKE, ARCHITECTS.



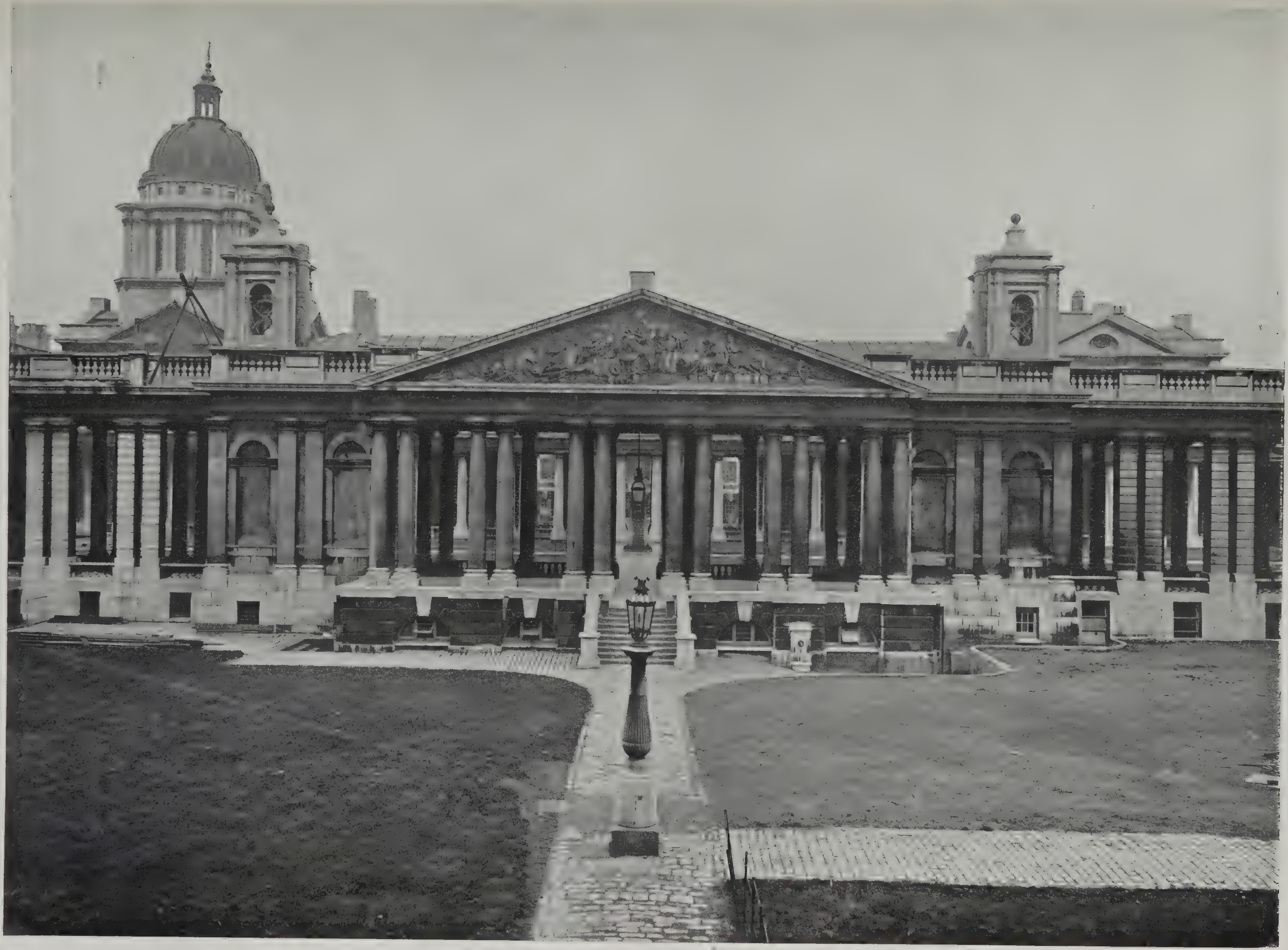
The Chapel.



N.W. View of Chapel and Main Entrance to Convent.

CURRENT ARCHITECTURE (SERIES IV.). L.—ST. AUGUSTINE'S PRIORY, EALING, LONDON.

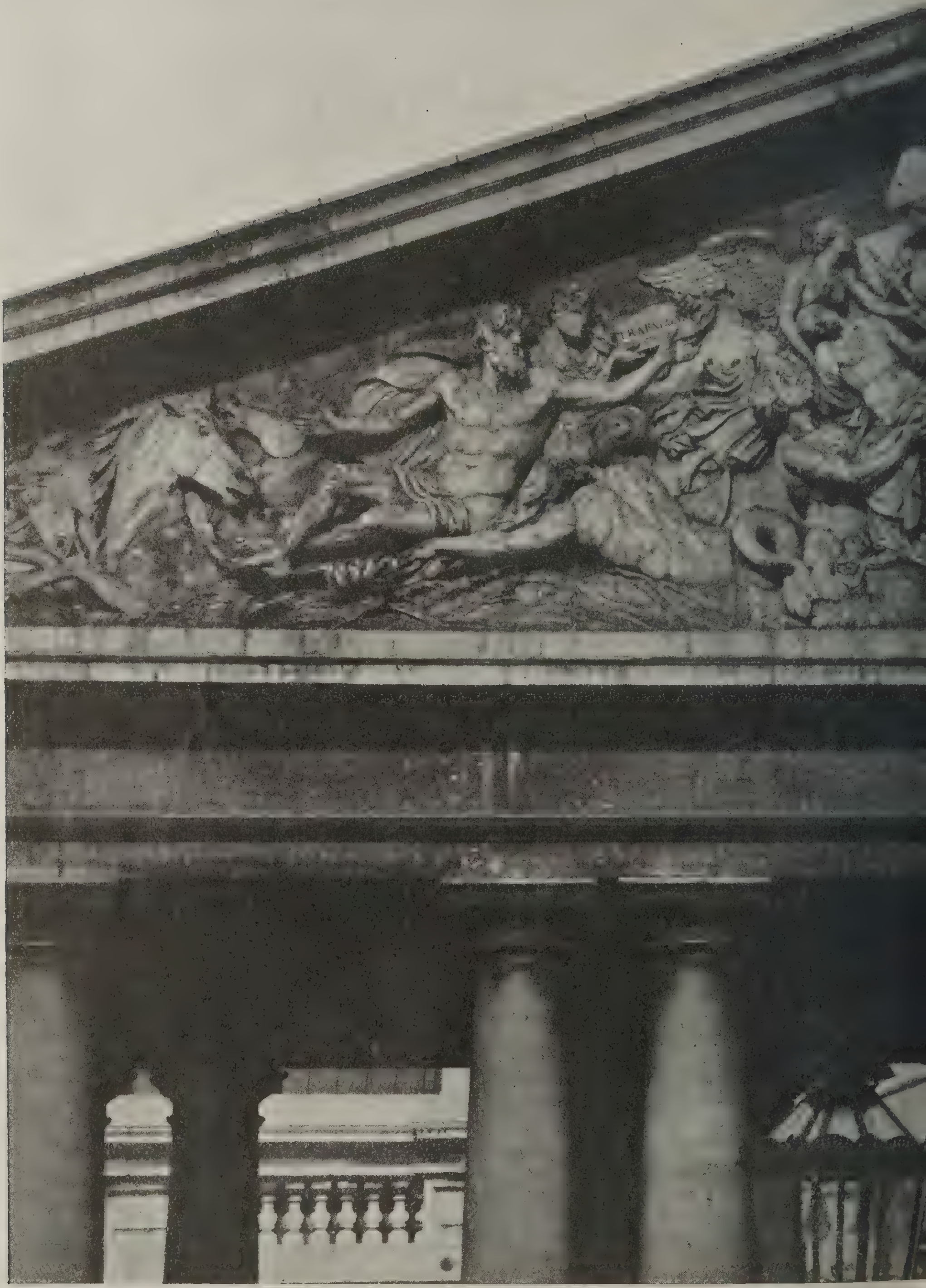
PEACOCK, BEWLAY, AND COOKE, ARCHITECTS.



MONUMENTAL ARCHITECTURE (SERIES II.). XLI.—KING WILLIAM'S BLOCK, GREENWICH HOSPITAL: DETAIL OF EAST SIDE OF QUADRANGLE.

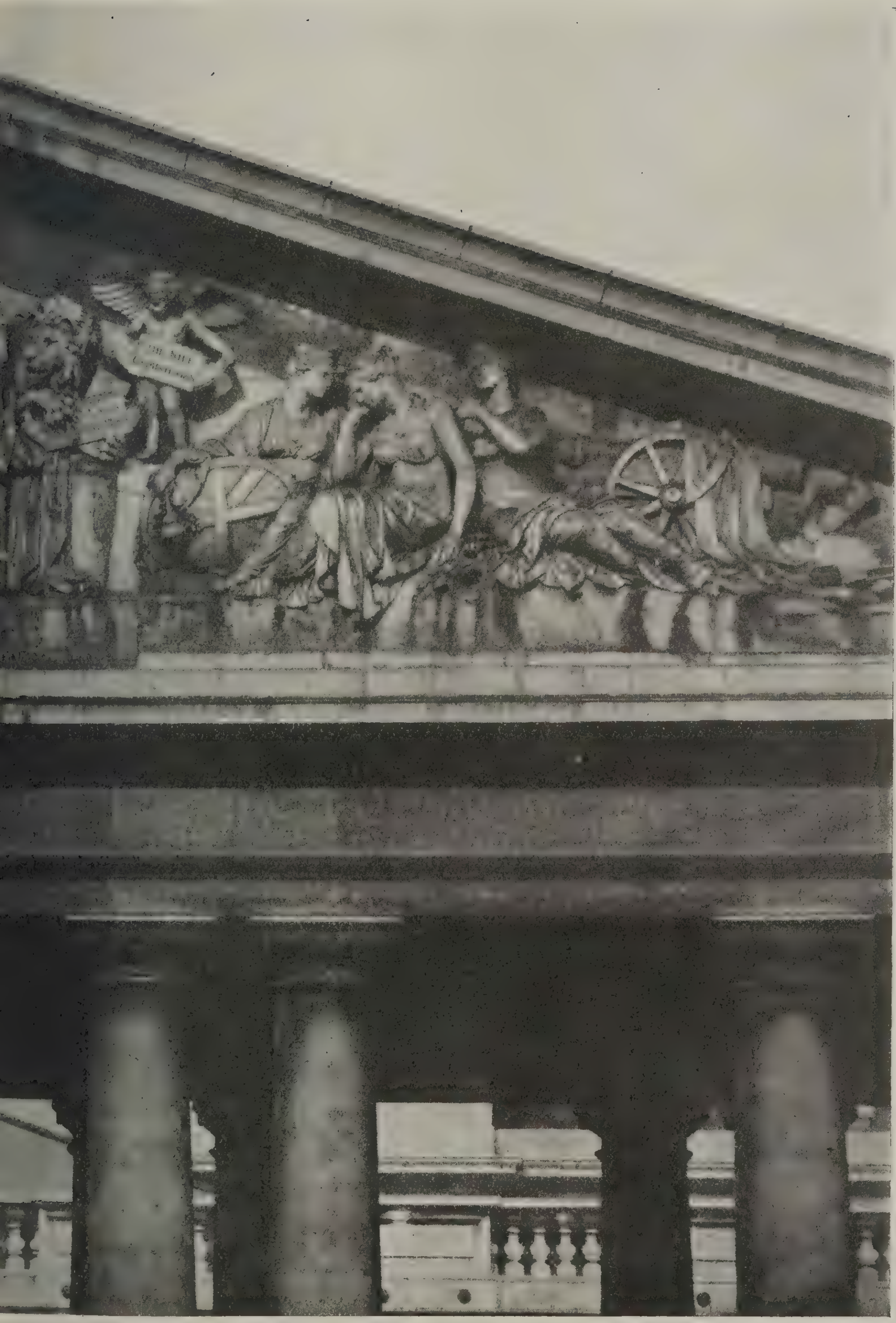
NICHOLAS HAWKSMOOR, ARCHITECT.

ARB



MONUMENTAL ARCHITECTURE (SERIES II.). XL.—"THE APOTHEOSIS OF NELSON

MODELLED BY JOHN BACON, R.A., IN CONJUNCTION WIT



DIMENT TO QUADRANGLE OF KING WILLIAM'S BLOCK, GREENWICH HOSPITAL.

TTA. FROM A SKETCH SUPPLIED BY BENJAMIN WEST.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

MARCH 13, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1210.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause wastage of effort and materials.

IT is possible that the New Architecture is to come from a new country—say Queensland. In an article on "Unconventional Church Architecture in Queensland," which Mrs. Florence M. Taylor contributes to our Sydney contemporary "Building," the title is justified by the illustrations. In many of the churches shown there are unfamiliar features—or there is the arrangement of familiar forms in new combinations or n unaccustomed proportions or collocations. St. Andrew's, Brisbane, for example, built of brick, is slightly relieved with concrete dressings, has a gable-end pierced by a large arch with a balcony, a huge campanile placed at an angle of the building, with a strong suggestion of creating constructional difficulties in the interior, and (we quote the lady) "a liberally proportioned vestibule, allowing of the use of growing plants, which contrast splendidly against the severe brickwork." As a matter of personal taste, we would clear out those tubs of plants, and leave the severe brickwork severely alone. Judging from the llustrations, we are disposed to agree with the lady that "the general form of the church can hardly be described in architectural category." The salient eature is the Romanesque arch, which has been used externally and internally in several forms. Other examples of Australasian churches included in he article do not greatly commend unconventionality. They support, rather, the contention that deliberate departure from established usage—the conscious attempt to create something new—is foredoomed to esthetic failure; presumably the lure of novelty is more seductive in new countries than in old. From he general tone of the lady's article it may be gathered that she does not unreservedly approve of all this empiricism. Some of her criticisms are very frank, as when she says, "the view shows the ugly corbels and the awkward shortening of the roof trusses, and how these impinge against an unsupported wall. The view also shows the abrupt termination of the window mullions." Here she relents, and adds in mitigation of her severity, "The open-back seat design is excel-ent, the whole seat being a model of comfort." It rather reminds one of the inconsequent ending of Mr. Henry Labouchere's character-sketch of two associated theosophists: "Colonel Olcott is a simple-minded, honest, straightforward American gentleman. Madame Blavatsky—rolls a neat cigarette."

* * * *

Referring to the draft of a Bill for the Registration of Architects which has been prepared by Mr. Arthur F. Pritchard, President of the New South Wales Institute of Architects, and unanimously approved by his council for submission to the Government, our Sydney contemporary "Building" notes that the Act makes architecture a close corporation as far as the holders of a registration certificate are concerned, but nothing has been done to prevent unauthorised persons from doing what an architect is licensed to do, except that it debars the unauthorised persons from using the title Architect, and from recovering fees in a court of law. Our contemporary contends that "what the Act should have aimed at was the suppression of the jerry builder, who, on the specious promise of giving his clients something for nothing in saving architects' fees, badly copies the genuine architect's work, and foists on to a deluded public unsanitary and unsound buildings."—Some such provision would not be entirely superfluous in our own country, where also our contemporary's instructive proposal would hold good: "The remedy for this would have been to insist on proper plans being prepared for every building, as is now required by local authorities, and to have made it impossible for these local authorities to accept the plans unless these were prepared by a licensed architect; for, as a matter of fact, this function of the Board has already been imperfectly anticipated by delegating to a so-called building inspector the duty of determining the correctness and propriety of submitted plans." Surely this is an entirely reasonable proposition, and one that should be kept in view by the framers of our own Registration Bills, who must be only too well aware of the laxity of many of our minor local authorities with respect to the passing of plans. Often the local authority is not competent to "read" a plan, and must needs depend on the advice of some official whose qualifications to give it are by no means obvious. Then, again some local authorities will accept plans so roughly and badly prepared that not even a committee of experts could make head or tail of them. It should be insisted that in every instance the building plan shall be prepared and signed by a properly accredited architect, whose functions no builder should be allowed to usurp. It is a curious anomaly that when it is only the public health that is to be safeguarded, the documents should be regarded with so much less strictness than those relating to transactions in real estate. Yet it is every whit as imprudent to build a house without consulting a properly qualified architect as it would be to transfer property without the aid of a lawyer; but in the one case a man would be congratulated on saving the fees, in the other condemned as a fool looking for trouble.

* * * *

Some public speaker has repudiated the word reconstruction. Perhaps he is tired of seeing it so often. But as he did not propose anything in substitution for it, we must continue to use it in its accepted sense of social and industrial reform or reorganisation. After all, it would be folly to waste energy in quibbling about words. All the strength that is left us—every ounce of it—must be given to the rebuilding of a world that is in ruins. Are we going to rebuild it to the old designs? That is not at all likely. They were not so perfect and so beautiful that we need feel very much reverence for them. That is possibly what the public speaker meant when he objected to the word reconstruction. We shall not—we cannot, and we would not if we could—restore pre-war conditions. In the fierce new light that beats upon us we see things differently. We see, for example, more clearly than ever before, that industrial unity is essential to our continued existence as a world-power—that we cannot afford to waste physical and moral force on unprofitable antagonisms between capital and labour, or between rival organisations of capitalists. We have pooled the national resources for war, and we must continue to pool them for peace. Everybody must contribute his due quota. Idlers and shirkers will not be tolerated. Useless knowledge will be held in contempt. A new conception of "the dignity of business" will prevail, and the educationists will shape their course in accordance with it. These are the notions that have been so freely expressed as to have become mere platitudes; but repetition does not rob them of their vitality, for a truth is apt to go unregarded by the many, to remain inert and inoperative until it acquires the musty flavour of a platitude, when it is esteemed to be rich and fruity.

* * * *

To venture upon a definite forecast of the future manifestations of the new spirit would be to disregard at one's peril Abraham Lincoln's wise maxim, "Don't prophesy until you know." We do not know for certain that the Institute and the Society will coalesce, as obviously they should do if "unity of the profession" is anything more than an empty phrase; we do not know that the universities, the Government education authority, the municipal authorities, the technological institutes, the professional organisations, will unite in one grand effort to lift technical training on to a higher plane of efficiency and into an atmosphere of freer diffusion and of unobstructed circulation, so that the best talent will be fostered and encouraged instead of being neglected and depressed; we do not know whether the Builders' Parliament will succeed in solving the vital problems of industrial reorganisation, or whether the Royal Institute will hold aloof from this high endeavour; we do not know whether architects will continue to advertise insidiously rather than do it openly; we do not know how on earth prospective clients can be expected to know the qualifications of architects who seem bent on concealing rather than on proclaiming their special merits, nor why building contractors in this country should similarly deny themselves the advantages of publicity—an antiquated self-denying ordinance that would be laughed to scorn in America; we do not know ——. But what we do not know, whether of the future or of the past, would, we grant you, furnish forth a fairly comprehensive library; but we do know that the matters we have mentioned are fermenting in men's minds: and an informal note such as this has often more effect than a set disquisition in assisting the process.

* * * *

Reconstruction, to be effectual, must be in the highest degree economical. Before the war, wastage in all directions was scandalous. About one-third of the foodstuffs found their way unconsumed to the dustbin, which may be taken as an index to the general extravagance. Matches, at twopence-halfpenny—or was it three-halfpence?—the dozen boxes were squandered with what is now seen to have been wanton profligacy. All the materials of building were used lavishly, and time and energy in their use were frittered away as if they were of little value. If the war has not taught us the wickedness of waste, it has taught us nothing. A writer in "The Times" lays particular stress on our former waste of labour, which, as the writer reminds us, was one of the evils that William Morris found soul-sickening. "I tell you," he said, "I feel dazed at the thought of the immensity of the work which is undergone for the making of useless things. It would be an instructive day's work to walk through tw
three of the principal shops of London on a week
and take accurate note of everything in the s
windows which is embarrassing or superfluous to
daily life of a serious man. Nay, the most of t
things no one, serious or unserious, wants at all;
a foolish habit makes even the lightest-minded o
suppose that he wants them; and to many people,
of those who buy them, they are obvious encumbra
to real work, thought, and pleasure." Here the
Greek motto holds—"Nothing in excess." De
and decoration shall be the stronger and purer for
enforced abstinence from what is superfluous, for
shall then be able to concentrate on essentials,
there should ensue an immense gain in simplicity
directness. Beauty shall be organic.

* * * *

One finds the names Charterhouse and Thack
inseparable in thought. Lovelace, Addison, St
John Wesley, John Leech, General Havelock, Gen
Baden-Powell, and many another illustrious n
inscribed on the school's scroll of fame will com
mind readily enough after momentary reflection;
the name of Thackeray springs to mind as sponta
ously as Lamb's when we think of Christ's Hosp
and for the same reason—each gave his old scho
place in immortal literature. When, in 1872,
school went to Godalming there was fanciful spec
tion as to whether the benign shade of Thacke
(he had then been dead nine years) would go with
the conclusion being that he would certainly conti
to haunt the precincts of the old almshouses
Clerkenwell to say "Adsum" with dear old Col
Newcome. He is there yet for those who have
to see withal. No such glamour can as yet h
gathered round the new Charterhouse at Godalm
Nevertheless, the war having sanctified all our g
schools as the fostering-places of heroes, it was
sore hearts that we saw in last Friday's evening pa
that on the same morning the school had suffe
seriously by fire, the main block—comprising
masters' houses, the dining-rooms and the school
—being completely destroyed.

* * * *

How the fire originated remains to be ascertai
According to the first report, "The cause, it is belie
was the fusing of an electric wire"; but reporters
apt, in their haste, to use this hackneyed formula w
out reflecting upon the mischief it may do in unw
rantably discrediting electrical installations, or
casting a damaging slur on those who are respons
for the work. Architects and electricians know
to assess such injurious statements at their real val
but the general public are apt to accept them with
challenge, and upon occasion to act in accordance
an erroneous impression which, frequently renewe
highly detrimental to the interests involved. Ev
fire expert will confirm our declaration that the or
of a fire can seldom be ascertained, if at all, with
patient and skilful investigation; and yet almost ev
journalist reporting a fire in the lay press rushes
print hot-foot with the surmise of a "fused elec
wire" or "an overheated flue." It is an ill habit,
we feel bound to protest against it. Reporters a
most fair-minded body of men; and we feel sure
this little convention of theirs would be cheerf
abandoned on their perception of the injustice
setting up a prejudice that, upon careful inquiry,
and often does, turn out to be quite groundless.
the Charterhouse School at Godalming was
nearly fifty years ago, when fire-resisting method
construction were at best but tentative, it is
difficult to understand the destructiveness of the f
and the hope may be confidently expressed that
the rebuilding, modern fire-resisting materials
methods will be adopted.

HERE AND THERE.

HERE were half-a-dozen reasons why I must needs buy that old print. It shows the pleasant, scholarly, benevolent face of a good man, who ist have bought his wig at the same shop whence hnson got his. Not that it is a disreputable old frag- ent of a wig, such as that with which Johnson for so iny years scandalised his friends. It is a very decor- s wig, first-cousin to that which Johnson donned ien he sat to Reynolds for his portrait. Its flaps ne down well over the ears. In Johnson's case they t on the shoulders, perhaps because the doctor was ort-necked. Either he should have had a longer ck or worn a shorter wig. Yet it was not half the igth of the fine, free-flowing full-dress wig seen in ieller's portrait of Sir Christopher Wren, making n a crested Wren by rising high above the noble me of his head, and rolling in graceful undulations wn his little back. In the middle of the eighteenth itury there were thirty-three different sorts of wig, th a corresponding wealth of nomenclature; but iether the short ones I have mentioned could be stly labelled bob or long bob, brush or bush, peri- g or pigeon's wing, or whether Wren's was a drop, utch, or a half-natural, or what not, I must leave the experts. For aught I know, Wren's may have en a "staircase" or a "ladder."

* * * *

How arbitrary is the regard for fashion. If Wren d gone without a wig to any of his buildings in pro- ess, the workmen would have been as much indalised as the workers of to-day would be if Sir ton Webb went on to the job in an "artichoke," a hinoceros," a "wild boar's back," or any other oice of the thirty-three. It is hard to imagine a obustious periwig-pated Fellow" of the Institute; r I assume that it was not established until some ars after wigs had gone out of fashion. At all ents, in the series of painted portraits that are so ecious a possession of the Institute, there is not one o wears a wig, although there are several who go what I may hint at (with, I trust, the utmost licacy and decorum) as the opposite extreme. It iy be assumed that these variations in thatching iy have had some slight effect on the details of plan- ig. Wigs had to be carefully housed and valeted; d even when they went out the small ante-chamber own as the powdering-room was not immediately olished. When Walter Savage Landor went to inity College, Oxford, some seven years before the se of the eighteenth century, he, like young Bob uthey of Balliol, was thought to be advertising volutionary sentiments by appearing in hall with powdered hair. "Take care," said Landor's tutor him; "they will stone you for a republican."

* * * *

But to the bewigged subject of my newly-acquired l engraving. It is the portrait of Gulielmus Bowyer, rchitectus Verborum. Even in our day, are there not iny architects whom this cap would fit?—men whose rds are conspicuously mightier than their deeds. ut let that pass," as the lady says in the Elizabethan medy; and William Bowyer, by your good leave, all pass for an architect of sorts; for until the Regis- ation shall have come into force, any man may call nself an architect and go unrebuked. William was, plain vernacular, a printer; and there has been ne better from the day when Aldus Manutius set up s Dolphin classics to the day when William Morris bbed himself "Master Printer" and gave us—no, ld us at some seventy pounds the set—his choice Chaucer. Bowyer, as the engraving of him bears witness, printed the New Testament in Greek, and wrote a history of printing. This much may be inferred from a volume and a scroll respectively; and between these informative and decorative addenda there is a tiny picture of a phœnix rising from the flames to greet the sun; because, in 1713, his father's printing office in Dogwell Court, Whitefriars, had been utterly destroyed by fire, but friends and fellow-citizens subscribed more than two thousand five hundred pounds towards conjuring a phœnix from the ashes. That thereafter he prospered may be inferred from his sending his son—the subject of my engraving—to Cambridge. Of his scholarship Bowyer the younger made many practical applications to his business. Warburton wrote to him, "I am glad you have been printing for Mr. Pope. . . . The Greek, I know, will be well printed in your edition." Like Aldus, Bowyer was editor as well as printer. Also he made translations from Virgil and from Rousseau; and when he died he left handsome benefactions to the Stationers' Company, whose "Bowyer Charities" have blessed many a decayed struggler in the world of books.

* * * *

One word more about this "Architectus Verborum," and I leave him. In 1740—thirty-seven years before his death—he commissioned a monument which he intended should serve for his father and himself. "The stone was completed, except the inscription, and in that state was placed on the outside of the mason's house at Hampstead, where it perished by the weather in the lifetime of the person who bought it for his tomb." But, if only for his benefactions, he might have said after Horace, "Exegi monumentum aere perennius." James Basire's engraving of him would alone have provided that; but there are in the hall of the Stationers' Company a bust and a brass to him.

* * * *

Now, the Basires were engravers even unto the third and fourth generation, and it is difficult to sort them out; but I think that this one was he who had William Blake for a pupil. Thereby hangs an uncanny anecdote. In that day there flourished exceedingly one William Wynne Ryland, who went to Paris with Roubiliac and came back with the stippling process, which he developed from an idea for imitation chalk-drawings which Jean Charles François had conceived. Ryland brought back also a pretty taste for printing in colours, and a less pretty taste for "painting the town red." He went the pace. Mr. Malcolm Salaman tells us, in his "Old Engravers of England," that young Blake, then a boy of fourteen, was taken to Ryland to arrange an apprenticeship; but the boy would have none of him. "I don't like the man's face," he said; "it looks as if he'll live to be hanged." Young Blake was articled to Basire; and Ryland was hanged for forgery.

* * * *

So runs the legend, which I am half-inclined to credit to that most prolific of anecdote-mongers, Benjamin Trovato. Even if it were literally true, one need not hail it, as some have done, as evidence of Blake's being a born prophet and seer. Ryland had led a dissolute life, and the marks of it must have been on his face, plain to less discerning eyes and to a less tender sensorium than Blake's For Life, after all, is your most relentlessly faithful engraver of faces.

DIOGENES.

PREPARING FOR PEACE. V.—THE BUILDING TRADE AND LAND TENUR

BY C. H. B. QUENNELL, F.R.I.B.A.

A FRIEND of the writer's, who is a well-known quantity surveyor, was, on the Saturday before meat rationing came into force, charged 13s. 9d. for a fowl. The butcher had failed, as butchers were wont to do a week or so ago, and the family, distended by a surfeit of beans, declared they must have flesh or die. Hence the fowl, which one understands, notwithstanding its price, was a poor bird who looked rather as if he, or she, had died of war worry, instead of sacrificing youth in the service of filling empty stomachs. Our friend, after taking out the quantities of the bird and finding the cost per ounce, has determined to forsake his profession in the hope of becoming a fowl profiteer. At the moment he is scouring the countryside to find a cottage with some land attached, where he can raise foodstuffs. In this he will be the forerunner of thousands, and the problem which will confront them all will be how to get the land readily and cheaply. Fowls at 13s. 9d. do not necessarily convict the shopkeeper of villainy, but do prove that money is coming to have little value, and that the time may be approaching when the quartern loaf will be a better medium of exchange than the pound sterling.

A New Land Policy Wanted.

As the area of the war widens, until, as now, the whole world seems being drawn in, the shortage of food must be accentuated. One source of supply after another curtails or stops the amount it has been sending us, and even peace will not restore us to normal conditions for a long time. Then there is the grave statement made by Sir Eric Geddes in the House of Commons on March 6 on the shipbuilding position. Inevitably all these circumstances must lead to a tremendous back-to-the-land movement; we may expect to find that the nation will follow the individual, and devote itself to allotments on a large scale; and there is plenty of labour available in the luxury trades. The building trade may be called upon in the near future to lend its aid in housing the new armies which will be needed to work on the land, and rapidly adapt all sorts of buildings to this purpose—to do just what the Admiralty are, at the moment, on behalf of the workers going to the shipyards. It is, in reality, ships to bring food, or raising food to save ships. All of which will be good spade work, in that it will be the beginning of finding occupations for soldiers returning after the war much too robust for office work and wanting a healthier existence. The finest material in the world cannot be allowed to emigrate, as it was before the war, because it cannot obtain land here. All this is admitted, and it may prove useful to examine the proposals for remedying matters of the various political parties, keeping in mind their bearing on the building trade.

Some Party Policies.

The Labour Party's policy, as outlined in the "Daily Telegraph" of January 3, 1918, includes "The opening up of access to land by co-operative small holdings and in other practicable ways." As well the report states that "The Labour Party stands not merely for the principle of the common ownership of the nation's land to be applied as suitable opportunities occur, but also specifically, for the immediate nationalisation of railways, mines, and the production of electrical power."

The policy of the particular brand of Liberalism for which Mr. Asquith speaks was voiced in a speech by him, reported in the "Daily Telegraph" of
January 17, 1918—it was stated as "the diffusion
ownership, a more rational and productive sys
of cultivation, the extension and development
co-operation among producers, and, above all
before all, adequate and decent housing and a m
mum wage for the labourer."

What the Unionists, Mr. Lloyd George's Liber
or the newer parties are going to do is not kno
and in any case we must win the war first, yet i
very certain that out of the welter alterations
come about, and that either as holders, or own
there will be many more people on the land in
near future.

A Pressing Problem.

All the new sorts of buildings and the method
tackling the problem quickly are all matters of
greatest interest to the building trade, especiall
alterations are to be made in the methods of l
transfer. No builder wants any reminder that
land is the source of all wealth. So far as we
concerned, we must have land to build upon, and
its surface, or under it, we find all the materials
which we build.

Feudal Relics.

A good deal may turn on this question of own
or holding, because the two terms are associated
different schools of political thought and so
supposed to be opposed, whereas in principle t
are identical. In point of law one does not own l
now; one holds it. If one runs through the hist
of the subject this becomes very evident. The An
Saxons did not own land, but considered it to be
collective property of the community, collecti
defended and enjoyed. The power of the Head
increased under the threat of the Danes, and the f
man lost some of his liberty; later, in Norman ti
and the heyday of feudalism, the lord had
demesne, but the villein had his rights in the com
fields. Just as the lord rendered service to the k
so his vassals shouldered part of the burden,
accepting it, obtained corresponding privileges.
statute of *Quia Emptores* of Edward I., 1290,
ferred the right to sell land, but the purchaser bec
the vassal of the vendor's lord, and still acce
the principle of service. This still remains
principle and has survived all the struggles of
"*De Donis*" statute, Edward I., 1285, w
re-established the estate tail, and the fictit
actions of the fifteenth century sanctioned
Taltarum's case, 1472, which did away with
Even land held under the tightest of settlement
held, not owned, and in point of law is held
service rendered. The ploughing up of land now
order of the State is a pregnant reminder to
effect.

Wanted—A New Spirit.

A good deal may turn on this. We all wan
avoid the wild men and the extremists. We
the spirit of the Whitley Report to be universal,
prefer industrial self-government to State con
Malcolm Sparkes's idea is as applicable to land h
ing as to bricklaying. The good landowner kno
his job should continue to *hold* as much land a
can usefully employ and render service in this
but must be willing to dispose of anything bey
this. We have muddled with the subject for su
long time now. Political parties have quarrelle
frequently, and the countryside has benefite
such a small extent; "Small Owners," "S
Holders," "Labourers' Cottages" are definit

re reminiscent of electioneering posters than of eful work done. The fault is perhaps that hitherto have approached the matter in a too material way, d have not realised its spiritual significance.

The writer came across a book the other day, by Rev. George Adam Smith, on the book of Isaiah, which the prophet's parable of the vineyard is plained in passages of singular beauty. "When e not only remembers the nature of the land—how s an element of life, so that if a man abuse the soil s as if he poisoned the air or darkened the heavens out appreciates also the multitude of personal relans which the landowner or factor holds in his nd—the peace of homes, the continuity of local ditions, the physical health, the social fearlessness d frankness, and the thousand delicate associans which their habitations entwine about the hearts men—one feels that to all who possess or manage d is granted an opportunity of patriotism and ty open to few, a ministry less honourable and red than none other committed by God to his low-men."

A New Crusade.

Such reminders as this are useful, if they enable land question to be treated in a better way than t of political controversy. We want another ter the Hermit to preach a new Crusade and force this principle of service; one would like to the landowners of England divest themselves of perfluous land, not wait until it is taken from m. We want free trade in land, not forcing it o the market by heavy taxation, which, by adding cost, adds to the price of the commodity. We also nt to get right away from the Tory idea, that all holdings are messy concerns which will litter the countryside and spoil its amenities, or the dical notion, that if you trust the working-classes d give them a stake in the country they will all n conservative. Let them be what they like; it kes little difference in the end if they grow foodffs now.

Land Law Reform.

As to the difficulties which will be encountered in y dealing in land on a large scale. Members of building trade do not need any reminder of the riety of methods by which land can be held in this untry and the difficulties of dealing in it. Speak- in the House of Lords, July 20, 1911, the Lord ancellor said that land transfer in this country as little short of a scandal"—that it "was unique its futility and costliness"—that "the fees for d transfer in one year, apart from stamps and ties, amounted to £4,000,000"—that "it was a g on landed property"—"a hindrance in the velopment of land and of its acquisition by small ners," and that "it depresses the value of the d." As a lawyer he must have known what he was king about. The Earl of Halsbury was in agreent, and said that "the acquisition of land for all holdings was a thing now greatly desired by th political parties, and nothing could check that vement more than the cumbersomeness and cost of present system."

The layman can only wonder why, in the face of h opinion, things are not altered, especially as result of the Royal Commission on the Land ansfer Acts, 1909-11, was distinctly in favour of extension of Land Registration. So far as the ter is concerned, readers, of course, know that, rting in 1862, Registration is compulsory in two unties only, and optional in the remainder.

Other interesting evidence was published in the ard of Trade Report of the Railway Conference ld in 1908. Here it was stated that the paid-up pital of the railways of the United Kingdom amounts to £56,000 per mile of line, much of the outlay having been incurred in obtaining statutory powers and in the acquisition of land.

Titles and Deeds.

Registration of Title may be summarised as the giving by the State, through its Land Registrar, of an "Absolute," "Possessory," or "Good Leasehold" title, as the case may be. This is to say, that, as in the present Private Deed system, the title is proved, but only once after the owner has substantiated his claim, and it is State recognition, which, after all, is the only ultimate solution under the private system. There can be no doubt that it would be of the greatest utility to the community, and especially the building trade. It tends to simplification all round, reduces the chances of fraud, increases the opportunities for obtaining credit, and building. All charges on the property must be entered at the Registry, and any banker can consult the Register, and find out the exact position of affairs in an hour or so; and one can deal simply, readily, and cheaply in land. If land is the source of all wealth, and it is imperative that we produce wealth as rapidly as possible, then it follows that we must have free trade in land.

An Example from France.

But a better method for increasing production must be adopted than was the case with the Enclosures carried out during the Napoleonic Wars. Thinly disguised robbery must not win the day. In the letters of Selwyn we read of, "Bully has a scheme of enclosure, which, if it succeeds, I am told will free him from all his difficulties." The enclosures ruined the cottagers, and drove the last of the old freemen to rot in town and slum—one forgets nowadays that during the eighteenth and nineteenth centuries nearly 20 per cent. of the total acreage of England was enclosed. Somehow or other there must be a renaissance of the countryside, accompanied this time by fair dealing. One wants something of the sort that is possible in France. Here is a letter from a French friend: "*Nos paysans économisent sou par sou pour acheter un 'lopin' de terre et finissent quelquefois par former à la longue, une bonne propriété. Les bons ouvriers sérieux n'ont guère d'autre but que d'amasser pour acheter un petit terrain y faire bâtir une petite maison avec un jardin dont ils jouiront et qu'ils laisseront à leurs enfants.*"

Which is quite a different matter from buying a leasehold villa, built for him by somebody else, and with a £7 ground rent attached thereto, or a standard R.I.B.A. cottage into which one is squeezed with an architectural shoehorn.

All sorts of ills might be cured if our peasants could buy, or hold, the equivalent of a *lopin*, but then there is the danger that they might become little Tories, and, of course, that would not do at all. They might even become contented—worse than all.

[Mr. Quennell's articles on "Preparing for Peace" have appeared in the following sequence:—

I.—Introductory. January 16, p. 26.

II.—Increase of Production and Effect on the Building Trade. January 30, p. 46.

III.—Labour Unrest. February 13, p. 69.

IV.—Elimination of Waste. February 27, p. 89.

Mr. Quennell's bold and frank expressions of his own personal opinion are, we are assured, the more highly esteemed for their freedom and candour. His subject is one upon which outspokenness is essential to value; for it is quite obvious that tame and stale platitudes about it do not make for progress. Mr. Quennell, who would be the last man in the world to pretend infallibility, would welcome criticisms of his views.—EDS. A. AND B.J.]

MR. BERTRAM C. GOODHUE ON ESSENTIALS IN ARCHITECTURE

DURING a recent visit to Honolulu, in connection with an architectural commission at Oahu College, Mr. Bertram C. Goodhue, of the distinguished firm of American architects, Messrs. Cram, Goodhue, and Ferguson, took occasion, in a public speech, to give the inhabitants some very sound advice with regard to the architectural embellishment of their city. Incidentally (in homely phraseology, pleasantly besprinkled with the American idiom), he summarised, with a neatness that many a more laboured and formal utterance has failed to achieve, the essentials that should characterise all sound indigenous architecture. By the courtesy of Mr. Cecil Brewer we have been allowed to see a newspaper report of the speech, from which we make the following interesting extracts:

"Before touching on architecture here," said Mr. Goodhue, "I'd like to point out that the word 'architecture' is at once too big and too little, and that it is commonly badly misunderstood. Perhaps the best way of explaining what I mean is to quote to you the usual opening remark of the usual client. It's about as follows:

"'Here's just what we want—my wife sketched it on the back of this envelope. You draw it up and put on the architecture.'

"Now, let me say right here—architecture can't be 'put on.' It's an integral part, the very heart and soul, of the very fabric itself, of the arrangement of the various rooms, of the material, of the relation of the building to its surroundings, even of the arrangement of the plumbing fixtures, and only in the slightest possible fashion is it a matter of ornament and decoration.

"Any building, no matter what purpose it may serve, can be good, even perfect, architecturally, without one scrap of ornament. In every age of art, ornament was not the first but the very last thing considered. So, sirs, all that you, or anyone, need do to get a thoroughly good building for yourselves, is to consider carefully what you want—or no, not necessarily exactly that, but, what you really ought to have—then consider the climate in which you are to build—such things as the breeze, the sun, the views, and the like—then, still further, consider the soundest, and best, and most economical fashion of building that will suit your purse—the most available materials—not forgetting that 'Far-fetched is usually dear-bought.' Then, when you have done all this, consult an architect in whose practical sense and artistic ability you have reason to have confidence, not necessarily a friend, or relative by marriage, or pleasant business acquaintance; and, above all, not the man who says he can build more cheaply than anyone else. Having done all this, then go ahead with an easy mind and in full confidence that you're going to get, not only what you, individually, want and ought to have, but a good, sound, dignified building as well; one that will be an honour to you and to the neighbourhood in which it is to stand; one that will certainly be regarded as architecture, not only by architects but by the public.

"In this list of things to be considered carefully before starting, I would include the foliage and plant life with which your building is practically sure to be surrounded. Apparently, almost everything will grow luxuriantly here (Honolulu), but not everything: so you should, I feel certain, plant only such things as God intended to have grow and thrive and not attempt to coddle along exotic and unsuitable plants to a delicate and anæmic sort of maturity.

"Given the things I've mentioned, everything else is non-essential to a good building. Nevertheless, one must and should take into account such things as sentiment and the ethnic background supplied by
client's civilisation. No considerable numbers of
race have ever migrated to a strange land with
taking with them something, indeed, as much as t
could, that would be 'like mother used to ma
Hence, in Mexico and the Philippines, one finds bu
ings, although almost always perfectly adapted
their changed environment, clearly Spanish in ori
In Java and South Africa, buildings as clearly
unmistakably Dutch. In India, Canada, and N
England, buildings quite as plainly British. T
exhausts the list of the great colonising nati
omitting the United States; but, invariably, the ar
tecture of the Spanish colonies is the best for
purpose, that of the Dutch next, and that of the Bri
a very poor third.

"May I mention, very gently, that while the Uni
States of America may be the great melting pot
the nations, we are still, artistically at any rate, beh
the British.

"Speaking of skyscrapers brings me to anot
point upon which I am glad to express my own i
vidual opinion, namely, that skyscrapers are not
needless but impertinent and absurd here in Ho
lulu. Oahu is a good deal bigger island t
Manhattan; where we are painfully restricted as
real estate, however inflated we may be otherw
Yet, even in New York, no more Woolworth buildi
or Metropolitan Towers may be built, thanks to
recent and very wise ruling of the Building Dep
ment.

"You certainly have land enough to spread
upon pleasantly, without attempting to invade
heavens, as we have had or thought we have ha
do in New York. So, while the missionaries' lov
home was deep enough to make his imitation aln
laudable, God forbid that you, sirs, should
attempt, by a similar process of reasoning, to in
this very lovely tropic isle with miniature
Franciscos, or Chicagos, or New Yorks.

"For materials, I can't help thinking that local
are the best, and so did the architects of the Parthe
at Athens, the Pantheon at Rome, and all the g
Gothic cathedrals. Coral, like that of which the
church is built, is, I understand, very difficult to
now, but lava-rock you certainly have in abunda
so it must be cheap, and there's no reason at all
it should be cut and trimmed and moulded and to
and tortured until its own proper quality is lost.
myself, I don't care much for its cold grey colour,
for the two ways I've seen it most frequently use
first carefully cut as to beds 'and builds,' but r
faced; and, in the other, laid up apparently 'dry,
covered carefully with vines as an afterthought.
not use this material, as in the oldest of the build
at Oahu College, or the precinct wall around
building, very frankly uncut or almost so—ceme
(or plastered—there are possibilities in lime
almost forgotten, but still there) quite roughly on
exterior; then treat it with a coat of waterproofin
its inner face, and line it, if needs must be, with
thinnest variety of hollow terra-cotta block be
plastering.

"Fireproofness is an almost vital quality of
building nowadays, so I hope you'll consider firep
construction as far as possible for floors and partit
leaving the floor surfaces of granolithic, which is
and not at all unpleasant to walk upon, thus avoi
the expense of wooden 'screeds,' cinder concrete
and wood floors—which last must be very good in
to be good for anything here. Since wood is rega
by certain insects as a toothsome article of di
should recommend your keeping down its use t
minimum—it is surprising how much more wood

nericans and Britishers use than is necessary in e way of backs, frames, architraves, and bases. ingles, too, are of wood, and rather transitory ings. To roof with slate, or, better yet, tile, which ear you will have to import from the coast or from pan, would be wiser even if somewhat more expen- e. Have your architect see to it that your building well and justly proportioned. Have the overhang your eaves pretty heavy, with an adequate and well- ntilated air-space beneath; keep your ceilings high d airy, your window and door openings large, ecially towards the breeze, and—when you've done these things—if you haven't forgotten by then, gin to think, very grudgingly, of ornament."

CORRESPONDENCE.

Government Housing at Chepstow.

the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—At the junction of the River Wye with the vern a great shipbuilding enterprise is in course of velopment under Admiralty control. It may assumed that all the low-lying land north of e Wye from Chepstow to the Severn will be needed the shipbuilding yards, leaving the tongue of high nd between the rivers, known as Beachley and retching northwards to the main Great Western ilway and Sedbury Park, available for the housing the army of workpeople to be employed in this tional enterprise. A more ideal site for an industrial vn could not be imagined.

About 660 acres of the land has been commandeered the Government, the greater part of which stands ll above the river, forming a ridge at Beachley and denham, and becoming an undulating plateau as it cedes northwards. From this estate in the blue tance across the Severn are seen the hills of oucestershire and Somerset as far as Minehead and rlock; to the north-east, also across the river, the tswold Hills; and to the south-west are the Welsh ountains; while in the foreground is Chepstow stle and town, and the lovely Wye River, with its erhanging hills, culminating in the Wyndcliff above ntern Abbey.

It had been generally understood that the lmiralty, realising its responsibility for a housing neme on garden city principles and the unique portunity this site presents, was working out the neral plan for a scheme somewhat similar to that ely erected at Eltham, near Woolwich Arsenal, and the one initiated by the Standard Shipping Com- ny, but on a smaller scale, at Chepstow itself.

Housing projects of this kind are now everywhere ken for granted as essential and complementary to eat industrial enterprises, and have been pronounced successive Presidents of the Local Government ard to be the first and most important step in social form and reconstruction. They can, however, only successful as the result of expert planning, at the rt, of the whole area of the land, showing all the ads and positions of houses and stores, gardens, otments, out-door recreation grounds, schools and urches, and an institution for social education and tertainment.

That no such lay-out has been prepared in this case ist be assumed from the building of two blocks of cottages each, in one case at the very entrance to e estate on the Chepstow-Beachley road on the ghest part of the land and in the most conspicuous sition from whichever way they are approached. replica block (just finished) is, again, on the higher ound overlooking the Severn at its junction with e Wye and seen most conspicuously from all passing ssels, as well as from the Beachley road. From the -out of the adjacent land it must be assumed that more blocks of the same character are about to be built. These oblong blocks are aggressively utilitarian —faced throughout with a very ugly red brick, and this notwithstanding that excellent rubble wall stone abounds in the immediate neighbourhood. The roofs are covered with blue slates. But the marring of this building site and the offence against the effort everywhere else being made to elevate the taste by associating beauty with human needs is not so disastrous as the inadequate bedroom accommodation these new cottages possess. What is to be said from the point of view of family life of a floor area of 6 ft. 1½ in. by 6 ft. 7½ in., and a height of 7 ft. 9 in. for the third room, and from the sanitary standpoint of 9-in. solid external walls in this exposed position?

Each house has a frontage of about 16 ft., with a forecourt of about 20 ft. and a back garden 16 ft. wide by about 45 ft. deep, which shows about twenty-six plots (net) to the acre. This is in striking contrast with model cottages recently erected by Colonel Marling, V.C., only a quarter of a mile further down the Chepstow road, with ample gardens and pigsties complete.

W. H. SETH-SMITH.

THE PLATES.

Boys' Institute, Wellington, New Zealand.

THAT the architectural traditions of the Old Country exercise a considerable influence over the development of Colonial architecture is shown in this admirable example of the work of Mr. W. Gray Young, F.N.Z.I.A., who has manifestly derived inspiration from the late Georgian period. At the same time there is a character about the building that clearly reveals other conditions and a different environment—a breadth and simplicity of effect that is achieved elsewhere only in the best modern American architecture. The Boys' Institute contains a public swimming bath, dressing-rooms, and director's room on the ground floor, and assembly-room, library, and a gymnasium on the first floor. The building is constructed on the steel-frame principle.

An Early Eighteenth-century Doorway.

This doorway, removed from Abingdon House, Wright's Lane, Kensington, and now in the Victoria and Albert Museum, is a delightful example of Early Eighteenth-century design and craftsmanship. It is of carved wood, panelled, with fluted pilasters, arched fanlight, and triangular pediment. The height is 11 ft. 6 in. and the width 7 ft. 2 in.

Detail of an Italian Hammered-iron Grille.

Italian ironwork is justly admired for its delicacy, intricacy, and beauty. An attractive example of seventeenth-century work is shown on this supplement—a detail of a hammered-iron grille of trellis pattern, with gilt rosettes. The complete piece, now in the Victoria and Albert Museum, is oblong in shape, and has a coronet of palm branches. The length is 5 ft. 3½ in. and the width 21 in.

Detail of King William's Block, Greenwich Hospital.

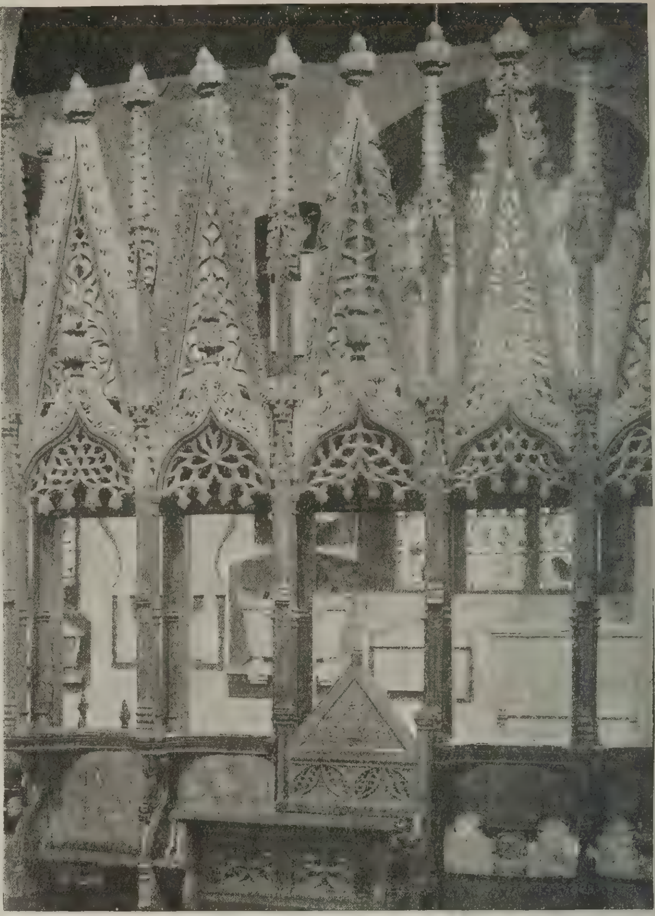
Vanbrugh, who superseded Hawksmoor as architect at Greenwich, designed and superintended the erection of the red-brick elevations of King William's Block. The red-brick gate-piers and lodges are also most certainly the work of this architect.

An American Domestic Interior.

Mr. Charles A. Platt stands in the very forefront of contemporary American domestic architects. The interior of a house at Tuxedo, New York, shown on the double-page supplement, is typical of his refined manner of design.

BOOK NOTICE.

English Mediæval Woodwork.



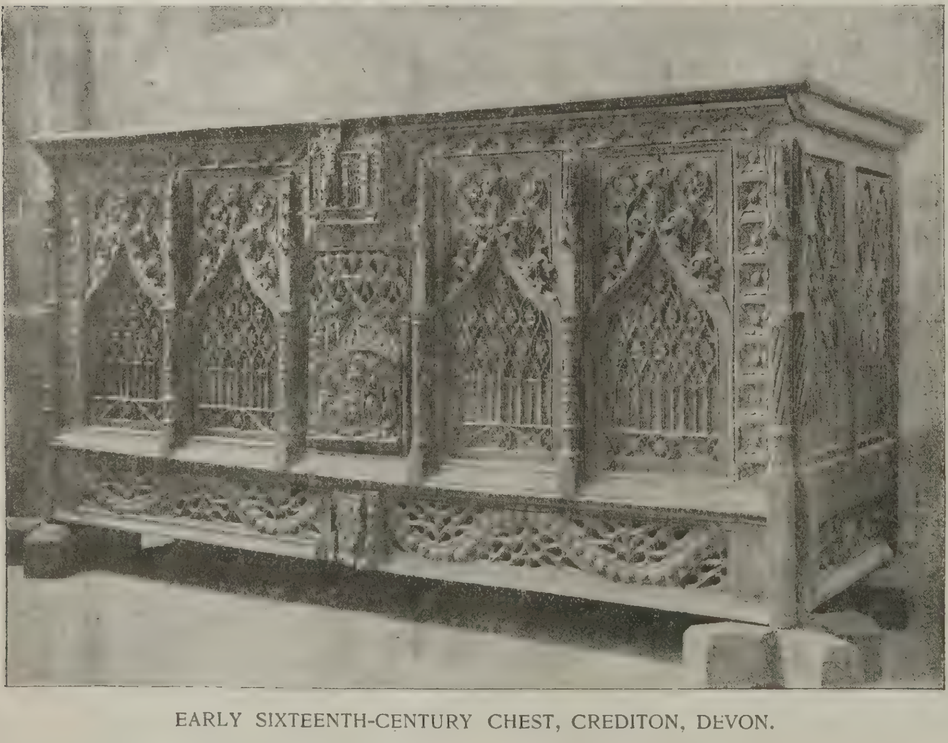
FOURTEENTH-CENTURY CANOPIED STALLS IN PARISH CHURCH, LANCASTER, LANCS. (SAID TO BE FROM COCKERSANDS.)

(From Howard and Crossley's "English Church Woodwork.")

English woodwork at its best is a triumph of craftsmanship. This is a trite verdict; but it may be safely said that neither the high excellence of English woodcarving nor the vastness of its quantity had been at all adequately revealed until the late Mr. Herbert Batsford persuaded Mr. F. H. Crossley to publish a selection from his magnificent collection of photographs and drawings of church work of the best period—that is, from 1250 to 1550. For more than twenty years, Mr. Crossley states, it has been his habit to spend six weeks of each year in studying and measuring up the mediæval church work of England, of which he has accumulated thousands of examples, and the late Mr. Herbert Batsford, having seen them, insisted that as many as possible should be put into a book. A beautiful book it is; and the letterpress in which Mr. F. E. Howard traces the rise and development of the craft of woodworking is worthy of the subject and of the illustrations. It is a scholarly and a most interesting history.

Of the seven sections into which the book is divided, the first is introductory, and the others deal respectively with structural woodwork (timber porches, doors, roofs, timber vaults); fittings of the sanctuary (altar, reredos, pix canopies, testers, sedilia, Easter sepulchres); quire fittings (stalls, bishops' thrones, lecterns); screens, roods, and lofts (origin and history of screen and loft, construction, and design); fittings of the nave (pulpits, benching and pewing, font-covers); tombs and movable fittings (alms-boxes, chests, cope chests, cupboards and hutches, tombs, shrines, and reliquaries).

It was not until the latter part of the thirteenth century, Mr. Howard states, that English woodwork began to assume artistic importance, masonry having until then occupied the best designers and workers, except such as happened to be smiths; and, quite naturally, in the circumstances, but in reversal of the more common sequence, the woodworkers began by imitating stonework designs. For as long as this practice was followed, the woodworker got comparatively poor results. He was working on a wrong method, and had not yet acquired
respect for his material, which, says
Howard, he evidently regarded as
inferior substitute for stone. Much
woodwork was done by the smith,
naturally thought that the best wa
embellish a door or a coffer was to
it with straps and hinges of scrollwor



EARLY SIXTEENTH-CENTURY CHEST, CREDITON, DEVON.

(From Howard and Crossley's "English Church Woodwork.")

Marking the rise of the woodwork
a finer feeling for his material is
stallwork of the quire of Winch
Cathedral, which, however, dating
the latter part of the thirteenth cen
shows all the faults and merits of
period. It is one of the first instanc
the use of tracery in woodwork.
natural forms were adopted instea
the stiff lines appropriate to stone-
ing, and there was an immediate ga
grace and sweetness. About the mi
of the fourteenth century it was f
that the horizontal and vertical
characteristic of the Gothic art of
period corresponded perfectly to
fibrous structure of the wood, and the
forward "the woodworker rose from
triumph to another, and after the
1400 the mason was no longer pred
nant." In the fifteenth century
woodwork became tremendous in q
tity and magnificent in quality.

By the courtesy of Messrs. Batsfor
show a few examples of this sple
collection, which is a monument
English craftsmanship. We could
that the book might find its way into
hands of every woodworker.

"English Church Woodwork": A Study in C
manship during the Mediæval Period, A.D. 1250
By F. E. Howard and F. H. Crossley. Londo
T. Batsford, Ltd., 94, High Holborn. Price 30s.

E REBUILDING OF LONDON AFTER THE GREAT FIRE.

WALTER GEORGE BELL, F.R.A.S.

ollowing is a précis of the paper under
title read by Mr. W. G. Bell,
.A.S., at the Royal Institute of British
hitects on Monday, March 4:
estoration London, like all European
itals of the time, covered comparatively
ll ground, and that very thickly. The
and its Liberties, within which the
at Fire raged, formed the densest
re of population, and the chief com-
cial, manufacturing, and trading area
he town, which had grown out to West-
ster and north towards Spitalfields and Clerkenwell. The flames of September, 1666, burnt through 436 acres of crowded property, leaving in ruins eighty-seven parish churches, St. Paul's Cathedral with bare walls open to the sky, and Guildhall in the same condition, the Royal Exchange, Customs House, and Sessions House destroyed, and no fewer than 13,200 houses, mostly timber-built, in heaped débris. There were six prisons burnt and forty-four Livery Companies' halls. Fire insurance being then unknown, the owners of houses and merchandise consumed were confronted with a dead, irrecoverable loss.

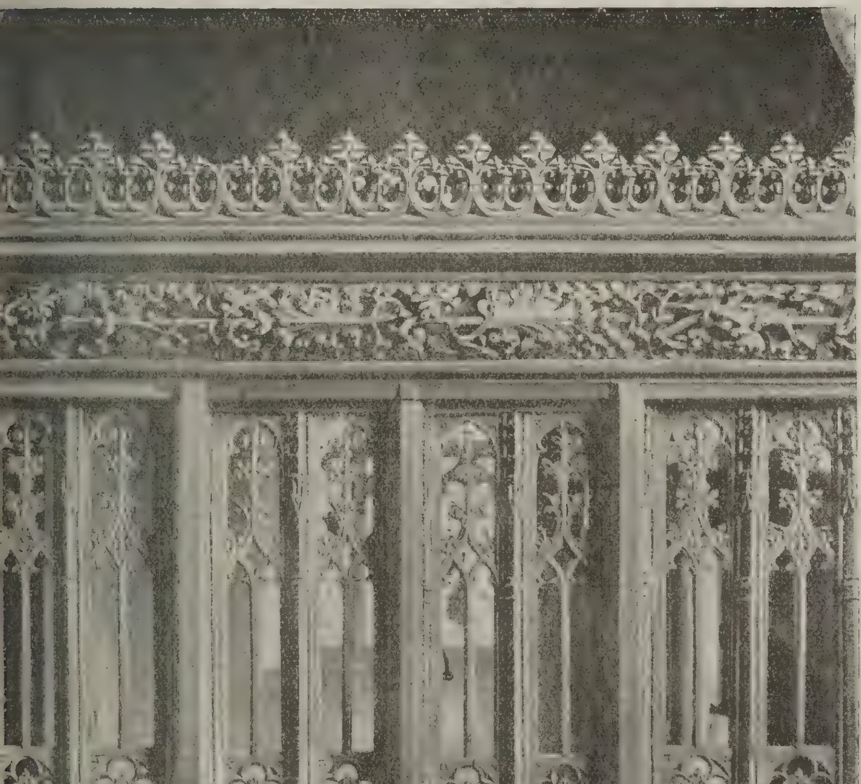
It has been said that the calamity, the greatest that London has known, was repaired in a few years. The inscription upon the Fire Monument definitely states: "London rises again, whether with greater speed or greater magnificence is doubtful; three short years complete that which was considered the work of an age." Echard and other historians are little more modest in their claims, giving four or five years as the term. The facts do not support these boastful assertions, which, unfortunately, have for two and a half centuries clouded all our ideas, minimising the vast magnitude of the task undertaken by the citizens.

The Acts for the Rebuilding of London and for setting up the Court of Fire Judges to decide disputes were passed six months after the Fire. The recovery at the outset was so slow that by December, 1667, the foundations had been staked out for 650 houses only. Samuel Rolle, the divine, nineteen months after the Fire, estimated that there were then 800 houses newly built. Merchants who had built in Cheapside and other important streets delayed utilising their houses fearing thieves as well as unprofitable trade till the City had made further progress. Meanwhile much was done by the City Corporation, though badly hampered for want of funds, in straightening certain principal streets, clearing away sharp corners, and reducing steep acclivities. Houses rose singly on the separate owner's sites, and only in after years were the buildings continuous. The Rebuilding Act and powers exercised by the City surveyors ensured that they should key correctly.

Parliament's only financial contribution was the Coal Dues, themselves partly paid by the distressed citizens. Originally 1s. per chaldron, or ton, and restricted in operation to ten years, they brought in to Midsummer Day, 1670—nearly four years after the Fire—the meagre sum of £32,630. The impossibility of restoring London's public buildings with such restricted means was recognised in the Additional Building Act of 1670, which raised the Coal Dues to 3s. per ton, and extended the term to twenty years. The City from this revenue and from loans restored Guildhall, Wren's work being completed in December, 1674, at a cost of £37,422. Newgate was patched up sufficiently to serve its historic purpose as a gaol till 1670, when rebuilding was begun, and was finished in 1675. Ludgate Debtors' Prison was rebuilt in 1673. The new Royal Exchange, raised at the joint charge of the Mercers' Company and the City Corporation, was opened in September, 1669. Crown revenues bore the cost of the Customs House.

Little real progress was made with rebuilding the London streets till the spring of 1668, when about 1,200 houses were under scaffolding, activity falling off towards the winter. In the spring of 1669 a somewhat larger number of new houses were under construction, about 1,400, and this rate was continuous till the autumn of 1670. Thereafter it greatly slackened, and labour was diverted to the erection of public buildings and churches. By 1672-3 the commercial needs of the capital were substantially satisfied.

In the matter of private enterprise the Livery Companies, to their enduring credit, led the way in the rebuilding of London. They raised funds for the restoration of their halls, in many cases before the dwelling houses and warehouses of individual liverymen could be rebuilt. The cost of building to-day (before the dislocation in prices caused by the European War) is from two to two and a half times as much as in the time of Charles II. It is unlikely that the houses newly built in



DETAIL OF SCREEN IN DUNSTER CHURCH, SOMERSET.

(From Howard and Crossley's "English Church Woodwork.")

the City exceeded nine thousand in number. The reduction from 13,200 is strikingly large, and indicates that the improvement of London after the Great Fire was more important than has been generally conceded—much larger, in fact, than I had been prepared for; but I have been compelled to accept these figures after perusal of the accounts for staking out foundations. Taking £300 as the average building cost of each of 9,000 City houses, we arrive at £6,075,000 as the burden borne by the citizens in rebuilding their houses expressed in modern money values.

Outwardly London appeared to be prosperous while all this money was being spent, but, in fact, it was passing through severe financial depression. The City treasury was filled and emptied vicariously from day to day. On loans for rebuilding St. Paul's over several years £88,000 was paid in interest. Dwellings and shops were unlet, wanting tenants. It is startling to learn that there were in 1672, as a contemporary writer asserts, whole streets of houses standing in the City uninhabited "and no person so much as asks the price of any."

London after the Fire remained for a decade, and then for a second decade a city marked all over with ruins. The Act under which the churches were rebuilt was not passed till 1670. Fourteen churches only had been completed by 1678, twelve years after the Fire. By the year 1683 London possessed twenty-five of its new churches. Seventeen years had then passed; three churches were but lately began, and there were still six others awaiting to be commenced from the foundations. St. Paul's Cathedral still required twenty-seven years for completion. Facts like these, added to what has been said concerning the time required for the public buildings and streets of new houses, make ridiculous the claim upon the Fire Monument that London, more magnificent than ever, was restored complete in the short span of three years.

SIR THOMAS JACKSON ON BYZANTINE ARCHITECTURE.

In the course of a lecture delivered recently in the Assembly Rooms, Bath, Sir Thomas Jackson observed that after the death of Theodosius two distinct currents of artistic expression were followed; the Western Empire with Rome as the nominal centre clung more closely to the ancient Roman tradition, while the Eastern Empire with the capital of the new Rome on the Bosphorus was Greek rather than Latin, and the traditions of Rome gave way under the influence from the East. The ordinary English church such as was built every day was based on the basilican plan which we had inherited from the days of Constantine. This soon yielded to the new influence from the East and the dome became the dominant feature of Byzantine architecture. The change involved an entire change of plan, with the notable exception of St. Sophia at Constantinople—a perfect flower of Byzantine architecture—which made it unlike any other interior in the world.

The decoration of Byzantine churches was pictorial, not sculpturesque. They had to look for paintings and mosaic instead of the sculptured decorations which were already beginning to appear in the Western churches. The architect worked with a thought for the painter and the mosaicist. Consequently where the buildings had lost their decoration the interiors were bare and the blank must be filled in by the imagination. St. Mark's, at Venice, he said, was a purely Byzantine building, and its wealth of decoration was beyond that of any other, the mosaic overflowing to the exterior.

It could hardly be just a coincidence that along the trade route from the East into France the Byzantine style was to be found, *i.e.*, at Perigueux, etc. Of Aix-la-Chapelle there was little doubt that Charlemagne not only pilfered the ancient monuments at Ravenna but brought architects hence to build his church there. Sir Thomas concluded by saying that to be in the war zone was to be in danger, and all the choicest treasures of Byzantine work were in greater or less danger of destruction. Some of them had already been damaged, at Ravenna, Salonika, Pola, etc., and if this hideous war went on for a further considerable period one of the most interesting types of bygone art was threatened with ruin. This was a fresh motive to the more civilised nations to see to it that it would be for ever after impossible for any one unscrupulous Power to plunge the world into such misery.

Mr. Frederic Harrison moved and Mr. Mowbray A. Green seconded a cordial vote of thanks to Sir Thomas Jackson. Mr. Harrison said he had visited many of the places mentioned—not as a student of art, but as an historian; and he advised the audience to study the history of those wonderful times, taking as the foundation of their reading Gibbon's "Decline and Fall."

HOUSING AND HOUSE OWNERS.

By invitation of the Lord Mayor, and under his chairmanship, a meeting of the Property Owners' Defence Association was held at the Mansion House on February 28, and an address on "Houses and Homes" was delivered by Sir William Robinson. Premising that he was a strong believer in private enterprise, but recognising that the urgency of the housing problem rendered Government action necessary, Sir William suggested that by means of concerted action on the part of the architects, builders, property owners, and tenants private enterprise might be enabled to survive. The Government could not, of course, lend money to individuals to build, but, through the municipalities or directly, the money might be lent to trusts and associations, who might say to the Government, "We will undertake to do what you want, and to do it under the conditions which you impose upon the municipalities." The members of such associations must, however, be content to make no individual profit; they must be prepared to make sacrifices in these times. But in the future wages would be higher, and many working men would be able to pay for better houses, even if the Government found it necessary to supply homes for the poorest class without strict regard to the question of economic rent. Thus there would be a wide field for private enterprise. He was informed at the Local Government Board that 172,000 new houses were wanted immediately.

Mr. Edwin Evans was, for the fifth time, elected president of the association at a meeting held previously at the Cannon Street Hotel, where he presided at a luncheon.

WAR LOSSES: REINSTATEME OF PREMISES AFTER MILITA OCCUPATION.

The importance of effecting rein
ment of premises in which dilapidat
have occurred through military occ
tion immediately such occupation has
minated was insisted upon by L
Terrington (the chairman) in a
which came before the Defence of
Realm Losses Commission, sitting
Spencer House, St. James's Place, L
don, S.W. It arose on a claim by
trustees of Mr. R. J. Bagshaw
£136 6s. for dilapidations at Stour
House, Dovercourt, which had been o
pied by the military, and there was a
claim for rent of the premises in resp
a period during which the premis
mained vacant pending reinstatement
were therefore producing no rent fo
trustees.

Mr. A. J. H. Ward, solicitor, of I
wich, appeared for the applicants, and
plained that the claim was in respect
a property which was before the Com
sion on April 25, 1917, when it was d
mined that a payment of £70 per an
should be paid by the War Office as f
October 11, 1915. Shortly afterwar
on May 8—the premises were vacate
the military, and on June 2 claimant
in a schedule of dilapidations amoun
to £136 6s. There was considerable d
on the part of the military in dealing
the matter, and no payment was mad
respect of the dilapidations, and this
vented claimants letting the premises
repaired condition. As a consequ
they claimed rent at the rate of £70 a
from the date the military vacated
October 13, when the War Office a
took possession.

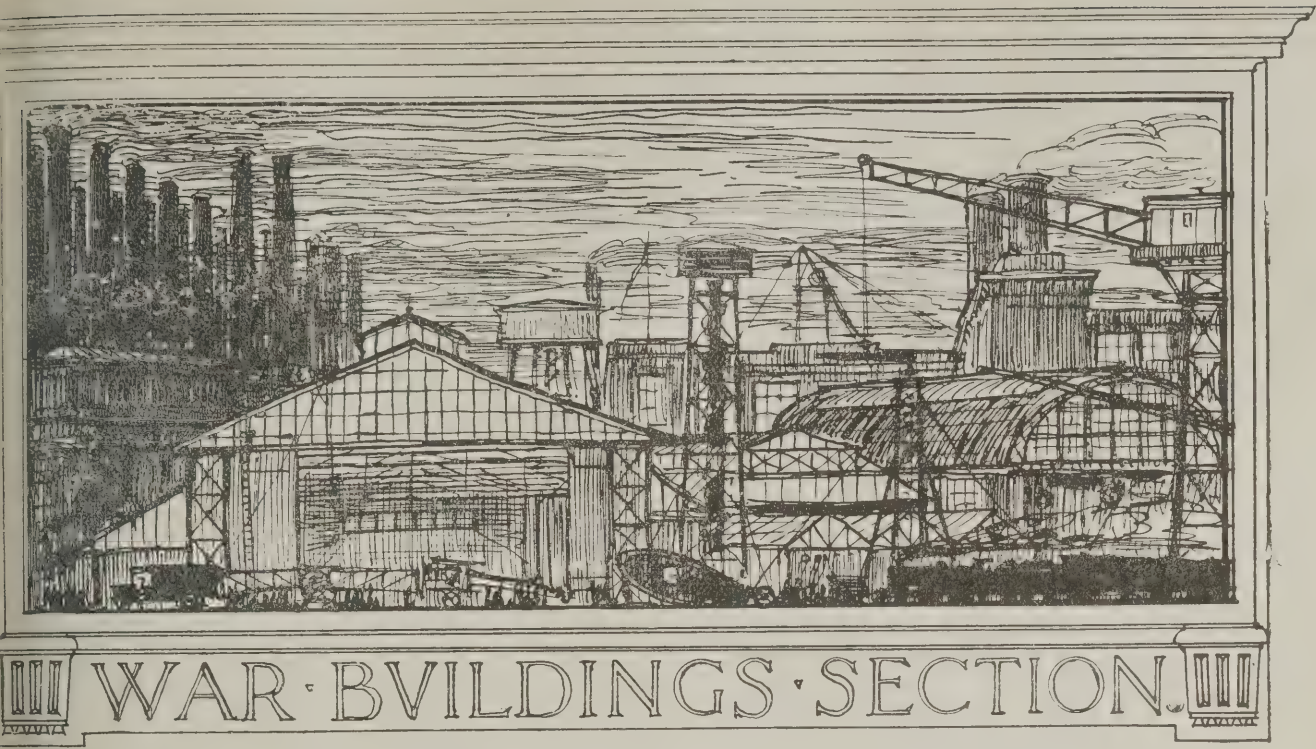
Mr. S. G. Turner (on behalf of the
Office) said that on May 9 notice
given to claimants that the military
vacated the premises. Claimants mig
once have got a surveyor to mak
schedule of dilapidations and a build
do the repairs, but they did nothing of
kind, and now claimed that the occ
tion should be regarded as continuous.
the claimants had done as they oug
have done, the house being lettable w
have been in civil occupation and n
to re-occupy it would not have been s
upon them by the military.

Lord Terrington said it was an ob
tion on an applicant to proceed to get
pidations made out immediately.
action of a prudent man would be to t
the onus on the War Office of disp
his amount; he protected himself a
deal by giving the War Office notice t
and examine dilapidations themselves

Mr. Turner said that, with regard to
claim for dilapidations, the War Offic
commended only a slight deducti
£124 18s. 8d. instead of £136 6s.

Mr. Ward said he was prepare
accept £124 18s. 8d. on behalf of
claimants.

After deliberation in private, the
missioner awarded the agreed am
(£124 18s. 8d.) for reinstatement o
damage done to the premises during
occupation up till May 8, 1917; an
the rate of £70 per annum from M
till August 8, 1917, being three mo
allowance for effecting reinstate
The Commission also awarded at the
of £70 per annum (plus an inde
against rates and tenant's taxes)
October 12, 1917, to the end of the oc
tion, as well as £5 5s. towards
expenses of the whole claim.



PLANNING AND DESIGN OF MODERN HOSPITALS.

OSPITALS: Yesterday, To-day, and To-morrow " is the title of a interesting booklet, in which a er of important suggestions for the on and financing of hospitals for the , and the re-organisation of the civil al services, are made by Col. Joseph hs, C.M.G., M.D., Mag.Chir., .S., Officer Commanding the First rn General Hospital, surgeon to brooke's Hospital, and consulting on to the County Hospital, Hunting-

Griffiths prefaces his thesis with llowing appreciation: " I take this unity of thanking my friend and ectual adviser, Captain Charles F. er, C.A.M.C., M.R., F.B.A., who, the outbreak of war onwards, has l his great technical skill and know- most freely at my disposal. Early or ir weather or foul, I could always rest d that no trouble was too great for o take in order that the results at we aimed might be obtained. How his guiding and correcting hand ome into play I am afraid to sug- but the result is that we have suc- l in putting into concrete and recog- e form the principles that I had in when I set out to devise the First rn General Hospital, and, as experi- vas gained, in developing a hospital n applicable to the solution of one of eat social problems, not only of the t alone, but of our coming recon- on period. To Captain Skipper I debted for the three appended plans, , in a few lines, give a better idea present and proposed hospital than be obtained from a long description." the courtesy of Col. Griffiths we are d to publish the plans included with oklet, together with the accompany- escriptive notes. The drawings are uced on pages 120, 121, and 122. shown on page 122 is the site plan of gested new general hospital, and the relate to the First Eastern General tal at Cambridge.

The Construction of Hospitals.

The First Eastern General Hospital at Cambridge was one of the first erected of the big war hospitals. Although classed as a temporary structure, it is substantial enough to remain serviceable for many years, probably fifty or more, without requiring any serious re-construction. This was planned on the principle that the most important portion of a hospital is its kitchen, to and from which there must be free access and easy communication with the wards. The wards are large enough to take fifty beds, giving each 60 square feet floor space and cubic space of 600 cubic feet. These wards are arranged in blocks, each consisting of a couple of wards facing south, in line with one another, and with a central sanitary portion, which is separated from each ward by a passage through which there is a free circulation of air, so that even if the sanitary annexes happen to go wrong, no offence or contamination can arise. The passages extend from the kitchen, and then from block to block between the wards and sanitary annexes; they thus extend along the whole line of the hospital. Originally intended for 500 beds, the hospital had to be extended almost as soon as it was completed, as a demand came for 500 more beds. Fortunately the kitchen had been designed to cook for three or four times 500, and with minor modifications, it proved to be large enough for the new extension, and, indeed, later in the summer of 1916, to the requirements of over 1,700 patients daily.

To the surgeon the operating theatre and its annexes appears to be the " hub " of the hospital, to the physician the room where he has his own appliances for diagnosis and treatment, but to the administrator it is the building which supplies food fuel for all the patients. This supply must go on daily, morn, noon, and night, whether the doctor is able to go round and see the patients or not. Consequently the operating theatre and other rooms for the doctors may be placed anywhere, provided they are easily accessible to the wards, but the kitchen must be in a central position and convenient of access.

The general plan adopted in the construction of the First Eastern General Hospital is, I believe, as far as administrative requirements are concerned, one of the best at present designed, and at the same time the most economical. One new feature in the hospital is worthy of special note. The wards are large enough to take fifty patients. It has hitherto been customary to regard twenty to thirty patients as a sufficient number for any single ward, and for a single sister to supervise. This notion prevailed at first in the First Eastern General Hospital; then those responsible began to see that one capable woman could manage fifty, sixty, or even more, when there was a push for extra beds. Moreover, in these open-air wards, such extension could easily be arranged. This reform, for such it must be looked upon, has come to stay, and any objection the nursing staff may have had to it has disappeared, I trust, for ever. The nurse is wanted for her skill as a nurse, and not for her knowledge of house-keeping and cooking. The manageress and the cook will attend to these. Here, then, the ward of fifty beds, with a small annex and half of the central sanitary section of each block, flanked by a passage at each end, is the unit, so to speak. Two ward units constitute one block. Originally the hospital consisted of five such blocks, each giving accommodation for 100 patients, or a total of 500. If the kitchen is large enough and the ground permits of it, block after block may be added, and the hospital be increased in size, as in this case, until it reaches to a 1,200 bed hospital. It is of interest to note that the first 500 beds were available in one month, and the second 500 in six weeks, although labour had in the meantime become scarcer. The building consists of a wooden framework, over which are nailed sheets of Uralite.

There is no lining, and none is needed, as this material is impervious to rain and wind, is a good non-conductor, and is fireproof. It is eminently suitable for use in the protection of the patients against either excessive cold or great heat. The roof is of inch boarding, covered with "prepared felt," which should be of three-ply thickness. The cost of the building remains much the same whether one side of the ward is left open and blinds provided, or it is closed in with windows provided according to fancy. In a military hospital more buildings are necessary than in a civil hospital, but in a large institution, ample enough to accommodate at least 500 or 1,000 beds, there will be little difference in the requirements of the two. When all was paid for except the freehold of the ground, which in this case, of course, was not desired, the cost of the entire building to accommodate 1,200 patients (in addition there are forty-eight side wards) amounted to £25,000, which works out at £20 per bed. Never before has such excellent and so much accommodation been provided at so small a cost. The main object of a hospital, namely, the provision of conditions, surroundings, and facilities for rapid cure of injured and diseased men, was always kept steadily in view, but money was not spent on unnecessary bricks and mortar, which can in no way whatsoever add to the value of an institution for the restoration to health of the sick and the wounded.

Considerations of the Future.

Since it has been demonstrated that a hospital that can serve its purpose as well as the First Eastern General Hospital can be built at the moderate sum of £20 per bed, the provision of a sufficient number of general hospitals for the people has been uppermost in my mind. Hitherto, the difficulty encountered has been the erection of a hospital that will serve all purposes, but at a cost that can be met with comparative ease by the people of the locality.

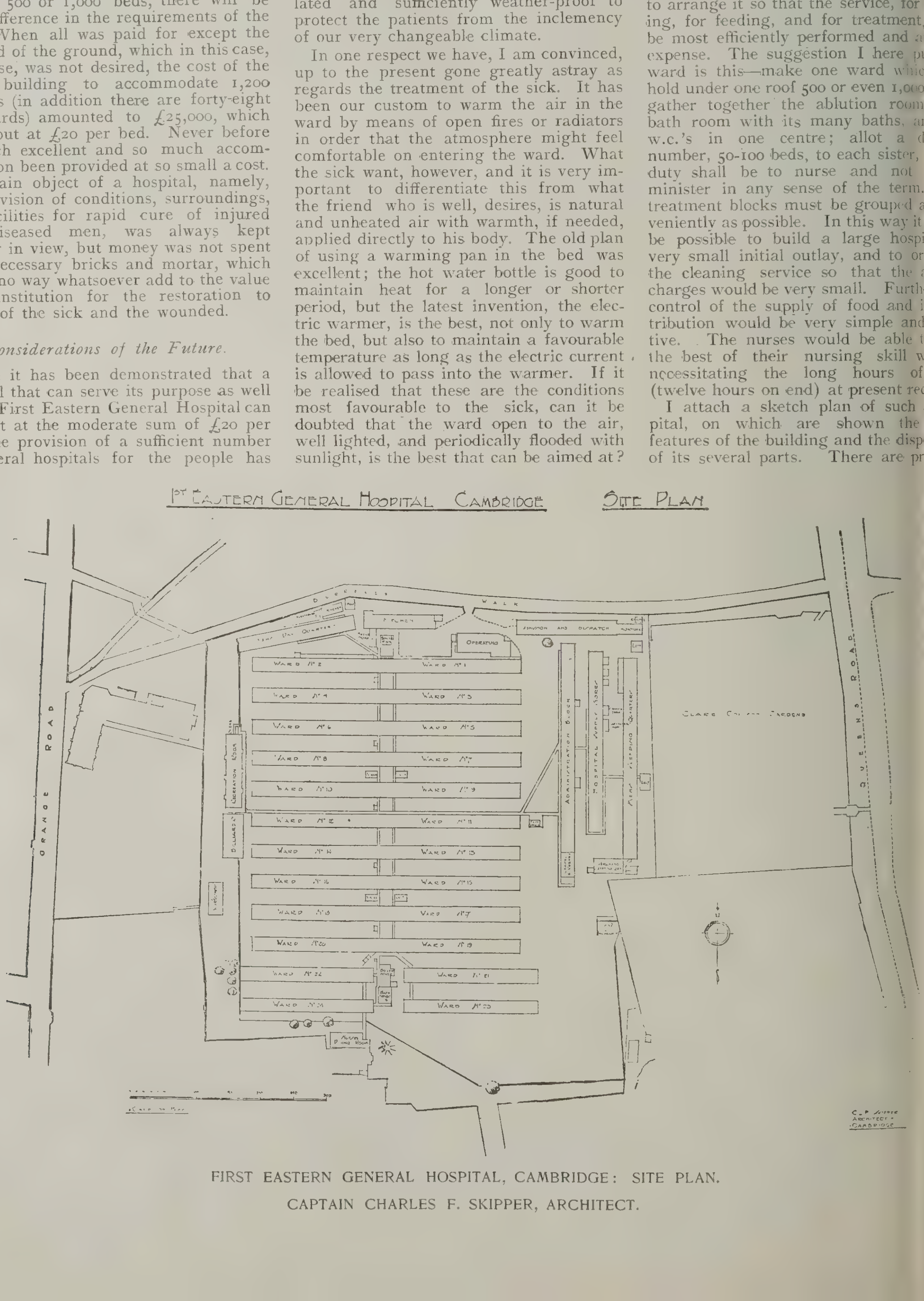
Our money is required to pay for skilled labour, whether in the kitchen, in the office, in the wards, or elsewhere, and this we can have, I feel convinced, if those to whom we look for it can first be convinced that the means of cure do not lie in costly buildings. The buildings must, of course, be commodious. They must be arranged to economise labour; they should be well lighted and well ventilated and sufficiently weather-proof to protect the patients from the inclemency of our very changeable climate.

In one respect we have, I am convinced, up to the present gone greatly astray as regards the treatment of the sick. It has been our custom to warm the air in the ward by means of open fires or radiators in order that the atmosphere might feel comfortable on entering the ward. What the sick want, however, and it is very important to differentiate this from what the friend who is well, desires, is natural and unheated air with warmth, if needed, applied directly to his body. The old plan of using a warming pan in the bed was excellent; the hot water bottle is good to maintain heat for a longer or shorter period, but the latest invention, the electric warmer, is the best, not only to warm the bed, but also to maintain a favourable temperature as long as the electric current is allowed to pass into the warmer. If it be realised that these are the conditions most favourable to the sick, can it be doubted that the ward open to the air, well lighted, and periodically flooded with sunlight, is the best that can be aimed at? There are drawbacks, it is true, but our business to overcome these, an can do this, if we set our minds t problem. The doctors must say in directions modifications are necessar in this they must be assisted by the n but on no account must the friends any say in the matter, except in the a ment and occupation of patients wi the high road to recovery.

The Proposed New Hospitals.

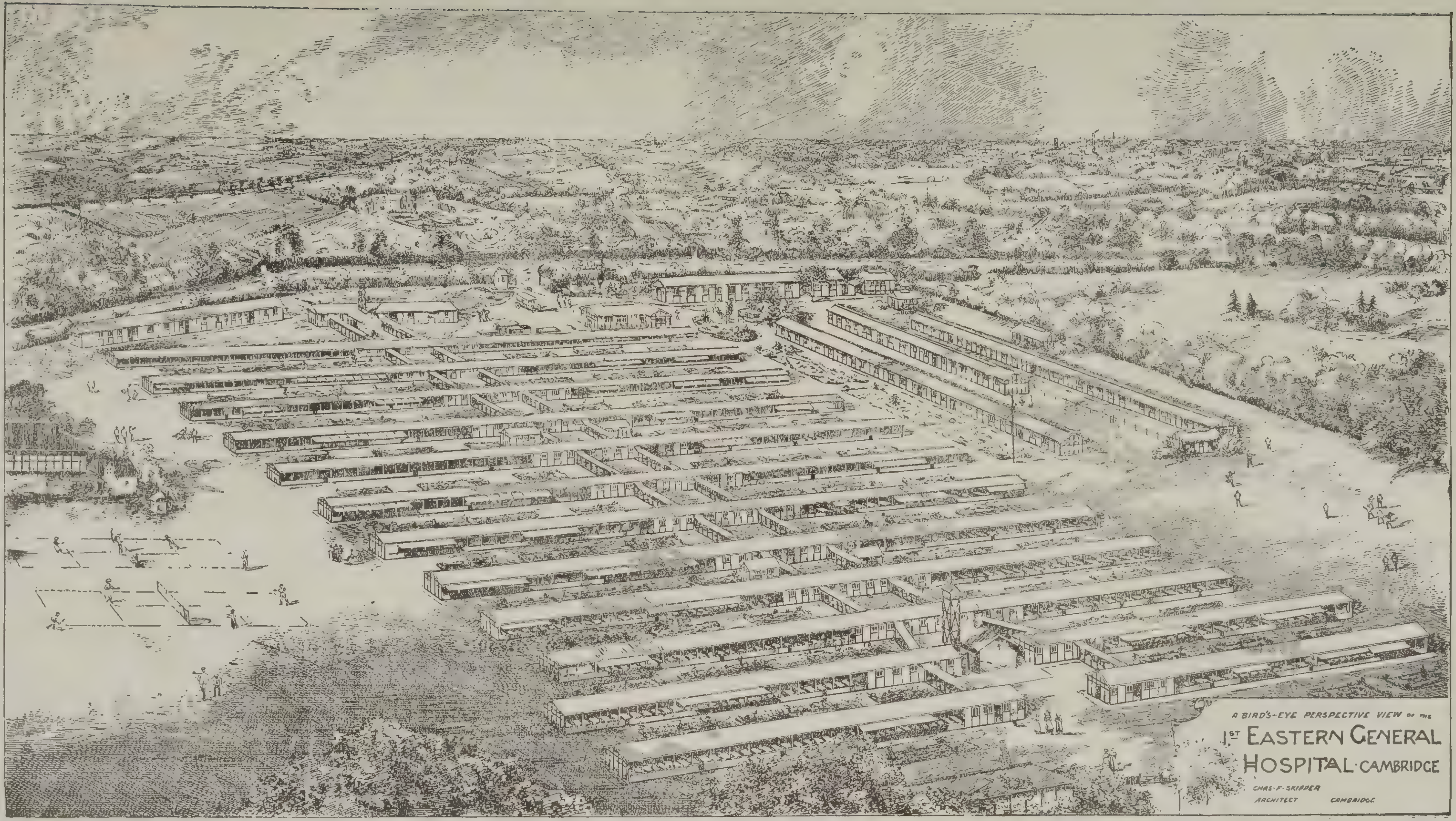
Having discovered what are the favourable conditions for the recov the patient, it is necessary to study further to economise in the building to arrange it so that the service, for ing, for feeding, and for treatment, be most efficiently performed and a expense. The suggestion I here pu ward is this—make one ward whic hold under one roof 500 or even 1,000 gather together the ablution room bath room with its many baths, a w.c.'s in one centre; allot a d number, 50-100 beds, to each sister, duty shall be to nurse and not minister in any sense of the term. treatment blocks must be grouped a veniently as possible. In this way it be possible to build a large hospi very small initial outlay, and to or the cleaning service so that the a charges would be very small. Furth control of the supply of food and i tribution would be very simple and tive. The nurses would be able t the best of their nursing skill w necessitating the long hours of (twelve hours on end) at present rec

I attach a sketch plan of such a pital, on which are shown the features of the building and the disp of its several parts. There are pr



FIRST EASTERN GENERAL HOSPITAL, CAMBRIDGE: SITE PLAN.

CAPTAIN CHARLES F. SKIPPER, ARCHITECT.



FIRST EASTERN GENERAL HOSPITAL, CAMBRIDGE: BIRD'S-EYE PERSPECTIVE VIEW.

CAPTAIN CHARLES F. SKIPPER, ARCHITECT.

what the patients require, namely, pure fresh air of the temperature of the surrounding atmosphere with ample shelter; warmth would be imparted by artificial means in the bed itself. The doctors will find all they require on the medical as well as the surgical side, and the nurse will be supplied with groups of patients on which to exercise her art and skill. The cleaning service will constitute a special branch, as will also the attendance in the sanitary annexes. Finally all food will be supplied by the central kitchen not only by day, but during the night.

In order to give some idea of the working of what at first sight may appear to be a complicated scheme and of the hospital provision necessary, it may be well to use a specific example of what might be done. Take a population of a definite number in which it is estimated that there are 100,000 insured; these, together with their dependants, will amount to 200,000 persons to be provided for. Now accommodation for the sick and wounded of a population of 200,000 persons of all ages, apart from the destitute aged and infirm, the insane, and those suffering from infectious diseases would, it is considered, be well provided on a scale of one bed per 400 head of population. This would allow about sixteen patients out of every 400 inhabitants to receive, if necessary, an average of three weeks' hospital treatment annually. The total number of beds required then would be 500, and if each bed were continuously occupied, about 8,000 patients could be dealt with in the course of one year. On such a scale it is likely every sick person would obtain necessary and adequate hospital treatment such as is now available to the comparatively few in our general and special hospitals.

NEWS ITEMS.

Changes of Address.

The Government having commandeered for war purposes his offices in Waterloo Place, Mr. G. Thrale Jell, A.R.I.B.A., has removed to 101, Jermyn Street, S.W.1. (Telephone number Gerard 4757.)

The Trus-Con Laboratories, having had their Kingsway offices commandeered by the Government, have now removed to 415-418, Bank Chambers, 329, High Holborn, London, W.C.I. Their new telephone number will be Holborn 360.

Huge New Factory at Burton.

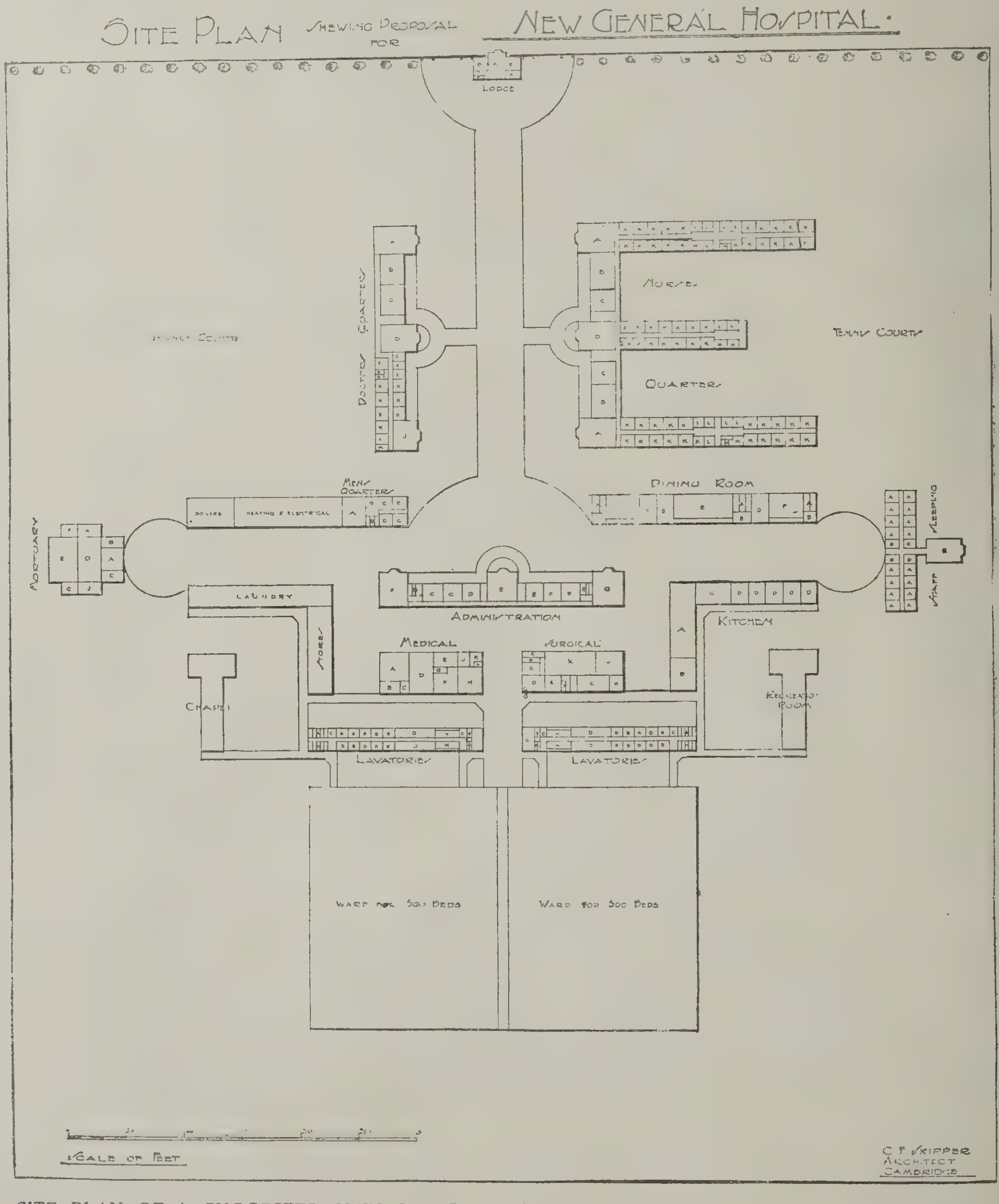
A vast range of factory buildings is n in course of erection at Burton-on-Tre The machine shop alone occupies an a of six acres, the whole being accomn dated under one roof. Mr. Thomas Watkin is responsible for the design of factory, and the works generally a under the supervision of Sir John Hunt the eminent engineer. The contract are Messrs. T. Lowe and Sons, who ha erected six other huge factories during war.

Wear Engineering Extension.

Sunderland Building Committee passed plans for a large extension of t shop accommodation at Messrs. Rich sons, Westgarth and Co.'s S Engine Works, and also for an exte of the Westmoor Engine Works in Florida-street, Pallion.

Workers and House Building.

With a view to stimulating inter amongst the working men of the parish the housing problem, the Barlboroug Church Council have circularised the me pointing out that if they contempla building houses of their own after the



SITE PLAN OF A SUGGESTED NEW GENERAL HOSPITAL. CHARLES F. SKIPPER, ARCHITECT.

were prepared to give advice with
l to procuring land and the borrow-
f money. Mrs. Locker-Lampson is
g at the disposal of the Council an
building site.

'uilding Trade Wages Board.

a representative meeting of presi-
and secretaries of various employers'
ations in the building trade in
ınd, a Board has been formed, con-
; of three representatives from each
to attend to the interest of the
ıyers in connection with the recently-
ged scheme for the periodical
on by the Committee on Production
uilding trade wages throughout
nd. The scheme is supported by
peratives throughout Scotland gene-
and is expected to remove the
alies at present existing in regard
ges and increases.

verting Large Houses into Flats.

writer in the "Liverpool Daily
er" notes a tendency to convert
houses into flats. A rather striking
ation of the profitable nature of this
of enterprise is provided by the
ce of a Liverpool gentleman's
—a property which, purchased for
o, was converted into three flats at
ditional cost of £1,000. These have
ly been let at rentals which aggre-
£500 per annum. If this work of
rsion can be carried out in these
sive days at such a handsome pro-
ve profit, it is obvious that with the
of normal times this form of enter-
will be still more lucrative.

An Architectural Peer.

l Ferrers, M.A., F.S.A., who heads
Bishop of Peterborough's Advisory
nittee for War and Other Memorials,
of our most scholarly peers. A
er of a family which dates back to
rd the Confessor, Earl Ferrers was
xhibitioner of Winchester and a
r of New College, Oxford, where
n honours in classics. He was after-
a pupil of Mr. Basil Champneys,
B.A., and became a prizeman of
rchitectural Association, and won a
Medal for an essay at the Royal In-
of British Architects. He is, there-
dmirably qualified to guide the Com-
in their decisions regarding the form
war memorials shall take.

Institute of Plumbers.

Board of Governors of the Institute
ımbers held their half-yearly meet-
st week at Middlesbrough, where the
, Councillor Joseph Calvert, received
in the Town Council Chamber, and
led a cordial welcome to the repre-
ives, who came from the largest
in England. The president, Mr.
Cox, of Knutsford, in acknowledging
lcome, pointed out that the meeting
een fixed for Middlesbrough in order
t the plumbers in Middlesbrough,
on, and Durham to take part in the
work they had in view. Meetings
in various surrounding towns had
attended with considerable success.
are not out for selfish motives, but
prove the status of the craft, and to
the municipalities to fight the various
ges, such as insanitary property.
ring to the question of reconstruction
he war, the President stated that the
pers were taking some little part in
work, and had committees associated
the Government dealing with their
particular work. Although mistakes
have been made by the governing
authorities in times gone by, he believed the Government in its various departments was now on the right track.

Housing Delay in Leeds.

The following resolution was carried unanimously at a special meeting of the Leeds Labour Party: "That this meeting deplores the neglect of Leeds City Council to prepare an adequate housing scheme for the city. Knowing the present serious shortage of working-class houses in all parts of Leeds, and realising that a crisis will develop in this direction at the termination of the war, the delegates earnestly declare that private enterprise will be unable and unwilling to cope with the situation, and demand the immediate preparation of a municipal housing scheme. The meeting declares its considered opinion that plans should be prepared and sites secured for the erection of at least 2,000 houses in the first year of peace, and that such houses should be on the scale of twelve to the acre, as recommended by the Local Government Board."

Town Development Scheme, Willenhall.

The town development scheme at Willenhall came before the District Council, when it was recommended that the Council should instruct their official to prepare a town-planning scheme in respect of an area of 250 acres situated on the west side of the town; that the Council consent to dedicate the piece of land at the corner of Field Street and Stafford Street, containing approximately 965 square yards, for a war heroes' memorial, as embraced in the larger park scheme; and that the Council express to the Park Committee their willingness to accept for the purposes of a public park the committee's gift of 24 acres, or thereabouts, and £1,200 towards the cost of fencing the proposed park. The surveyor reported that of the £4,700 promised toward the scheme £3,000 had already been paid. It was estimated to cost £6,000.

Housing at Leyton.

At a meeting of Leyton Urban District Council, the Legal and Parliamentary Committee reported that it had been intimated to the Local Government Board that in their opinion the erection of 500 additional houses would be necessary at the close of the war. The committee had considered a resolution of the Leyton Trades Council urging the District Council to at once undertake the building of an improved type of house for the artisans in the Leyton district. The committee pointed out that it would seem impracticable to carry out the suggestion for immediate operations, for (1) the reason that no loan would be granted at the present time for the purpose, and (2) that all land available for building operations was being cultivated, and therefore would not be available till the end of the war and perhaps for some time afterwards. The report was approved.

Cost of Housing After the War.

Speaking at the annual meeting of the Nottingham House Builders' Association, Mr. A. W. Shelton said it was calculated that a complete scheme to provide a million houses within five years of the declaration of peace, and, taking the average cost of erecting a cottage at £230—it might be more—would require a capital outlay, spread over the five years, of £250,000,000 sterling. To that amount must be added the cost of the land, and, as 70 per cent. of the land was freehold tenure, the further capital outlay, spread over the five years, would amount to from £14,000,000 to £21,000,000. He urged that a system of provision of houses by local authorities should be limited, restricted, and discouraged.

IMPERIAL WAR GRAVES COMMISSION.

The Secretary of the War Office states that the second meeting of the Imperial War Graves Commission was held on Monday, February 18, the Prince of Wales, president, in the chair.

It was announced that the Government had undertaken to bear the cost of laying out, enclosing, planting, and maintaining British military cemeteries abroad and of providing suitable headstones for the graves wherever possible.

The Commission had under consideration a report from Lieut.-Colonel Sir Frederic Kenyon, Director of the British Museum, who had been appointed adviser to the Commission with regard to the laying out and architectural treatment of cemetries and who had consulted the representatives of the various Churches and religious bodies and had paid special visits to France and Belgium to study the local conditions and to acquaint himself with the opinion of the armies in the field on the subject. The chief recommendations were:

(a) That the principle of equality of treatment laid down by the Commission should be carried out by the erection over the graves of all officers and men in the war cemeteries abroad of headstones of uniform size, but, in each case, distinctive as regards design of the regiment or other unit to which the officer or man belonged.

(b) That in addition to the individual headstone there should be in each cemetery central memorials inscribed with some appropriate phrase or text.

(c) That the constructional work in the cemeteries should be carried out under the general supervision of three principal architects, Mr. Reginald Blomfield, Sir Edwin Lutyens, and Mr. Herbert Baker.

Sir Frederic Kenyon's proposals were generally approved, and it was agreed that, with a view to arriving at an accurate estimate of the cost of carrying them out, the necessary authority should be obtained to proceed, on plans approved by the three principal architects, with the work of laying out, enclosing, and planting, and the erection of headstones and central memorials in three selected cemeteries in France or Belgium which contain the graves of both British and Dominion soldiers. On this estimate could be based the recommendation which the Commission would make regarding the proportion of the total cost to be borne by the Governments of the United Kingdom and of the Overseas Dominions.

It was announced that regiments and other military formations had been asked to send in their own suggestions for the design of headstones. These were now being received by the Commission, and it was decided that the offer of the Directors of the National Gallery and the Wallace Collection and Mr. Macdonald Gill to assist in the final selection should be accepted. It was stated that some, if not all, of the Dominions would decide on a headstone representing the Dominion rather than individual regiments.

A committee was appointed to consider the special questions arising with regard to the graves of Indian soldiers.

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> verted this ancient procedure—th
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>
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> least idea to whom they are a
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> editorials and articles which yo
> publish week by week? An origin
> and lively turn of thought, expresse
> in good, clear, crisp English, is n
> so often found in journalism th
> one need hesitate to thank thos
> who furnish it.

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useful. It is appreciated.

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brought thousands of men int
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forces supplying and equippin
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be brought into a factory b
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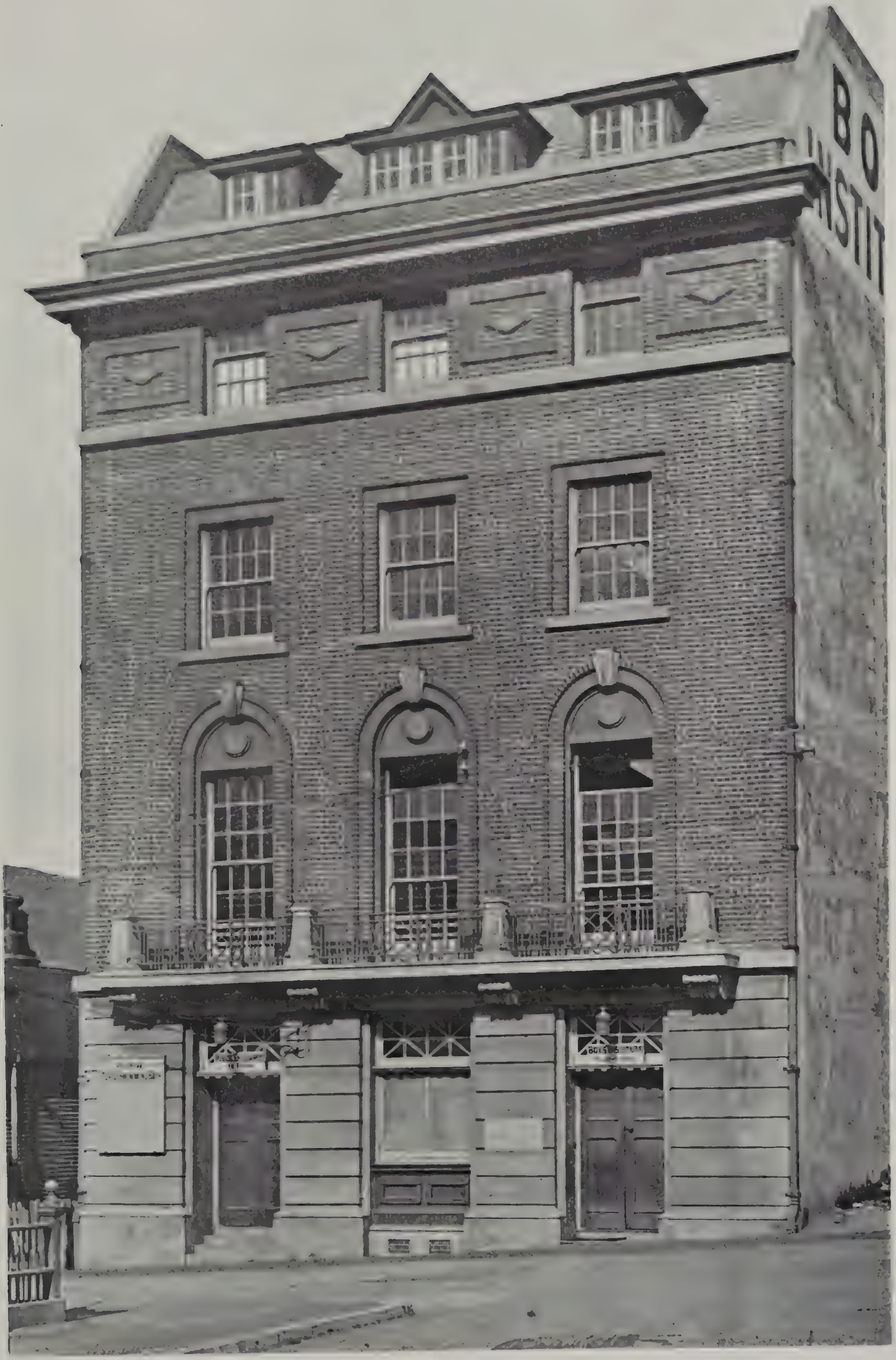

CURRENT ARCHITECTURE (SERIES V.). III.—BOYS' INSTITUTE, WELLINGTON, NEW ZEALAND.

W. GRAY YOUNG, F.N.Z.I.A., ARCHITECT.

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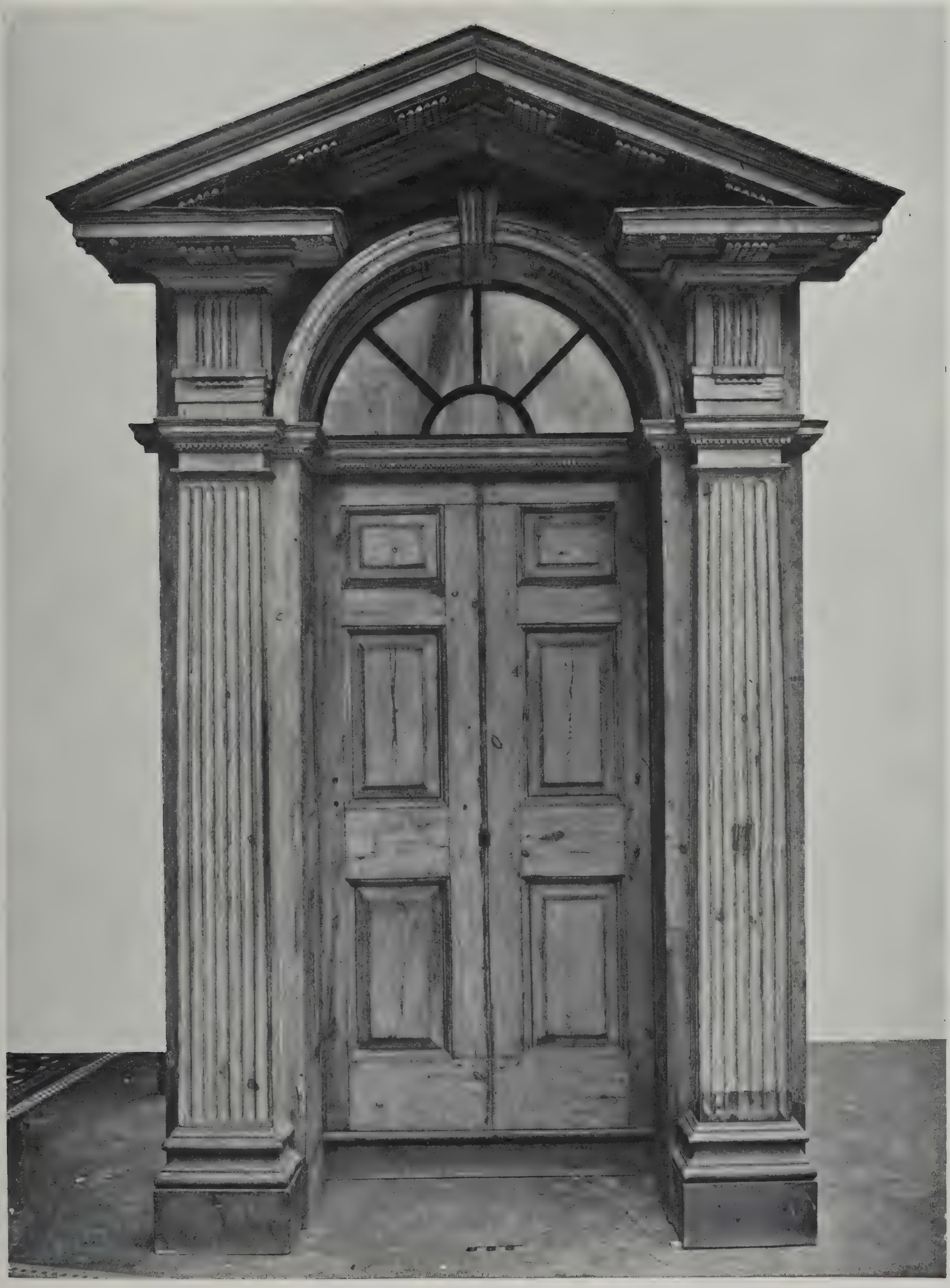

DOORS AND DOORWAYS. XX.—WOOD DOOR AND DOORWAY FROM ABINGDON HOUSE, WRIGHT'S LANE, KENSINGTON, LONDON.

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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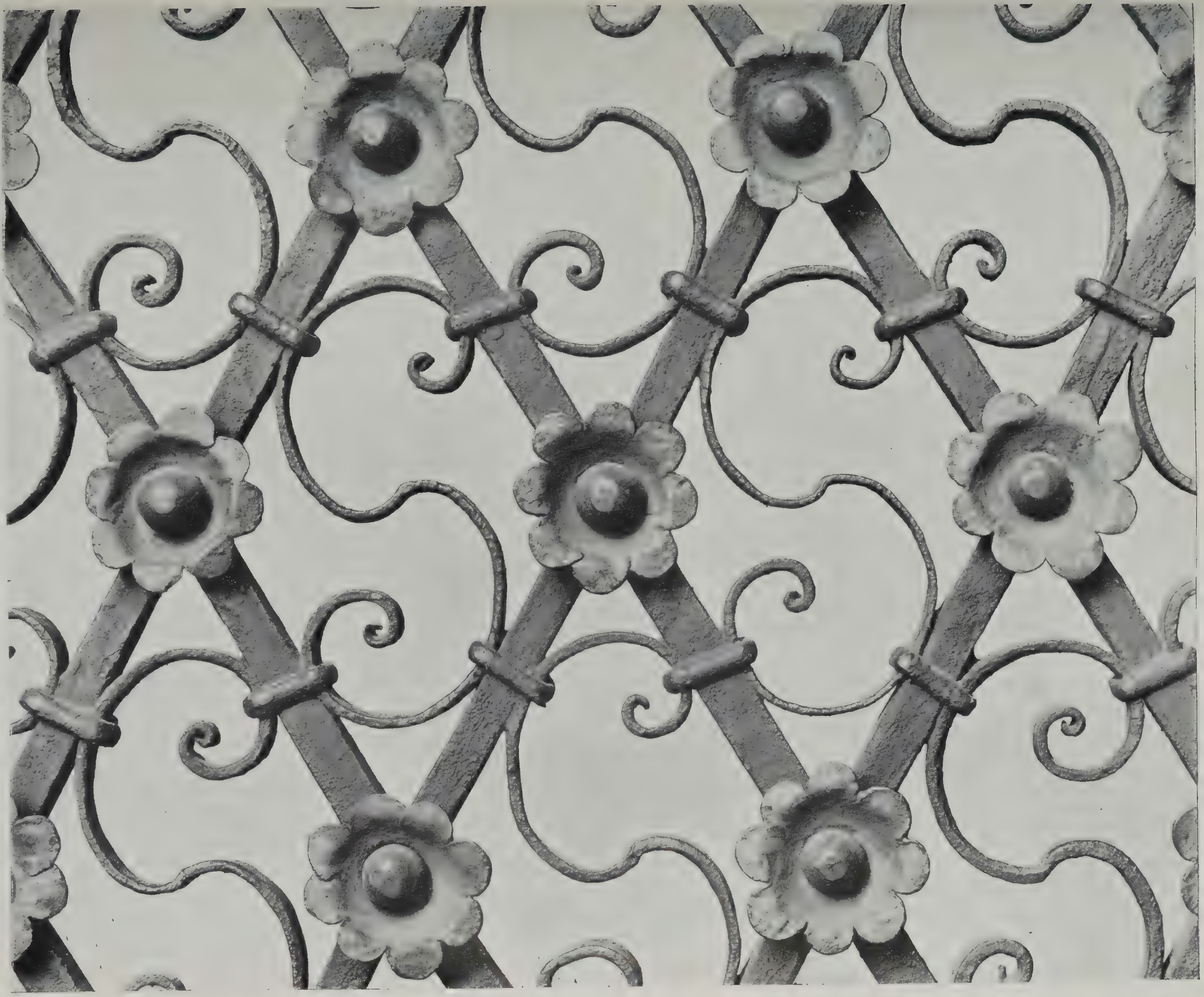

DETAILS OF CRAFTSMANSHIP (SERIES III.). XVII.—DETAIL OF HAMMERED-IRON GRILLE (ITALIAN).

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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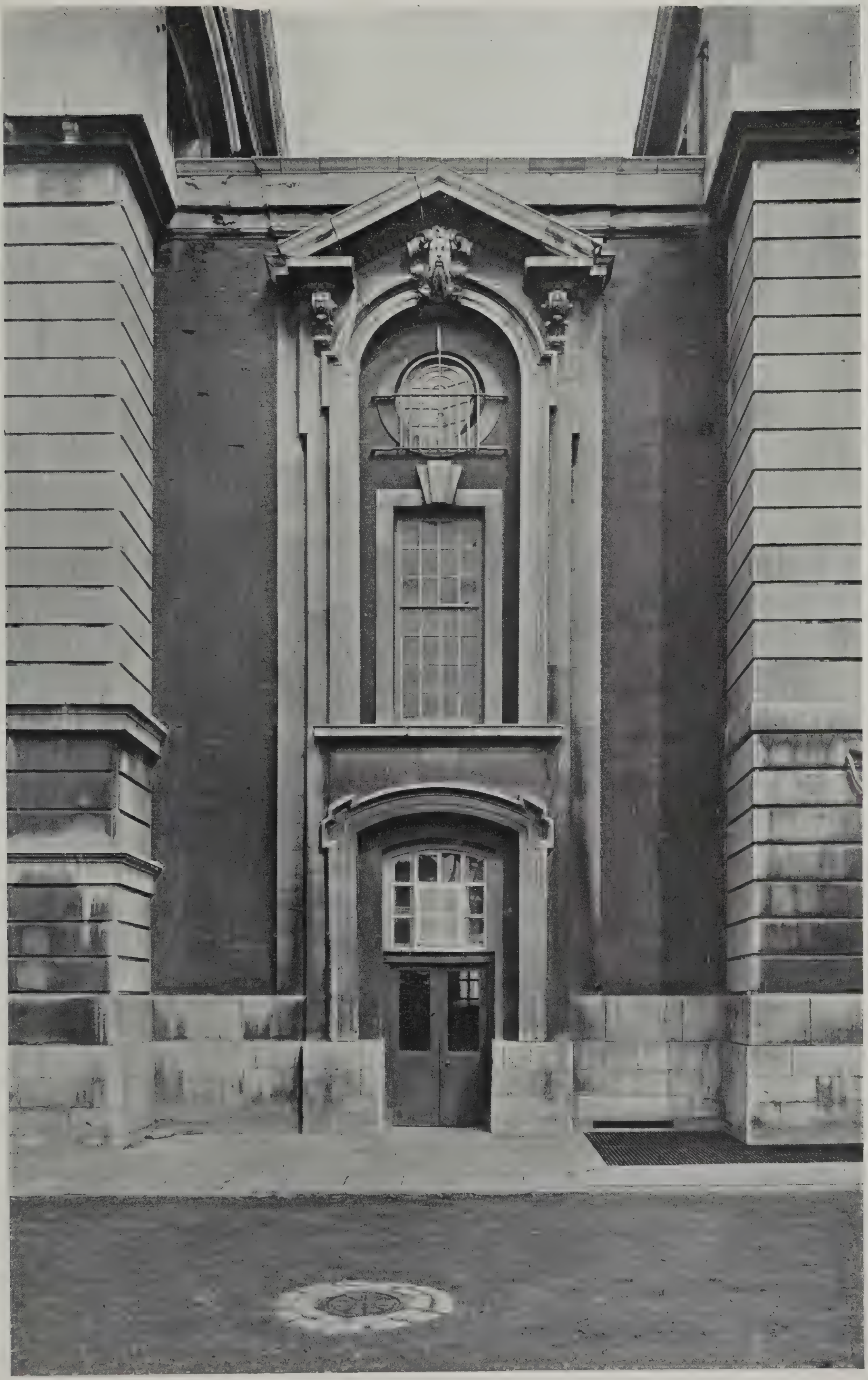

MONUMENTAL ARCHITECTURE (SERIES II.). XLII.—KING WILLIAM'S BLOCK, GREENWICH HOSPITAL; DETAIL OF WEST FRONT.

SIR JOHN VANBRUGH, ARCHITECT.

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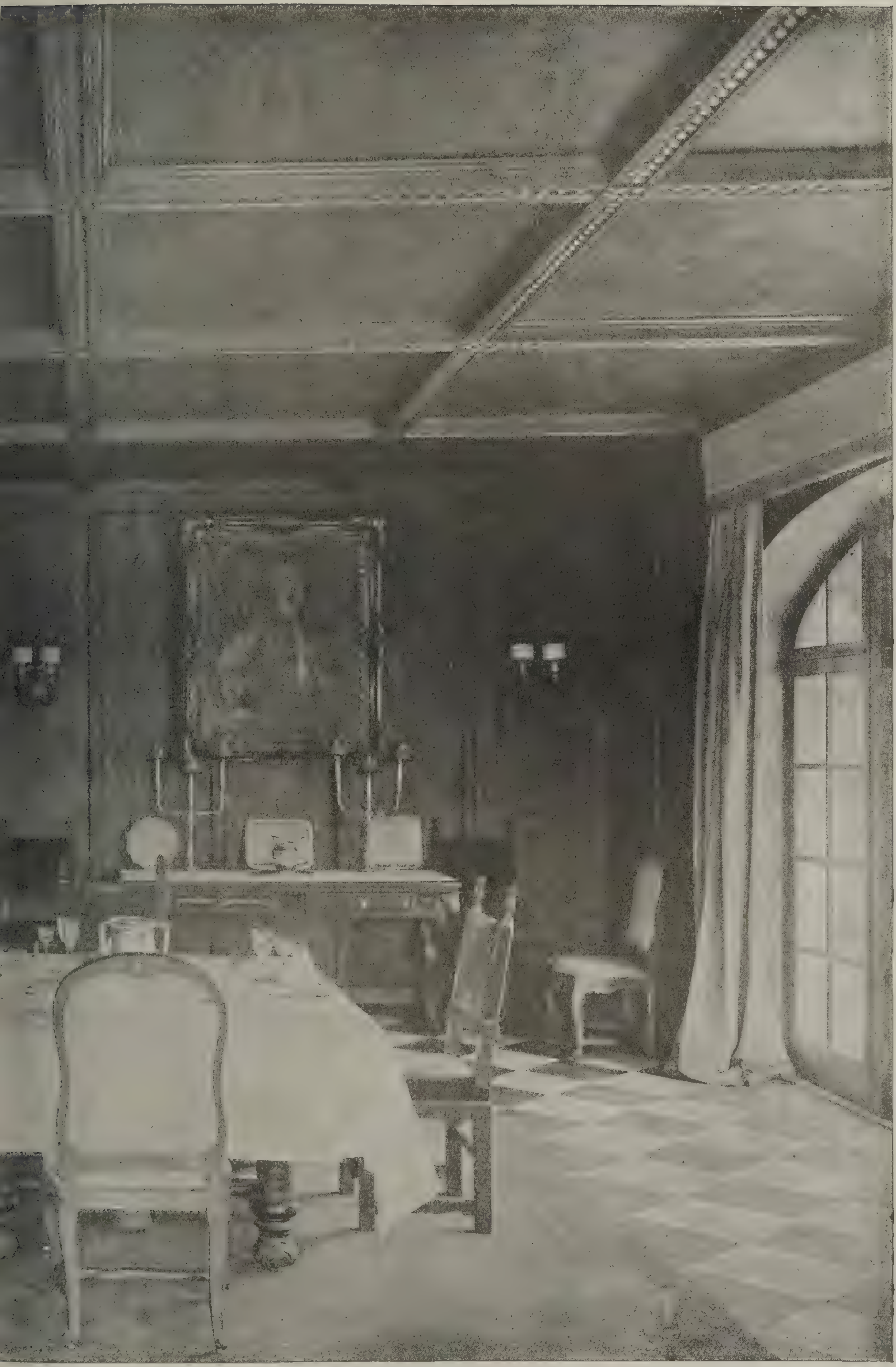
MODERN AMERICAN ARCHITECTURE (SERIES III.

CHARLES



DINING-ROOM IN A HOUSE AT TUXEDO, NEW YORK.

T. ARCHITECT.

LIBRARY
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THE ARCHITECTS' AND BUILDERS' JOURNAL.

MARCH 20, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1211.

NATIONAL PAPER ECONOMY.

wing to the very necessary Government restric-
s on paper supplies, all elements of waste must
igorously excluded. Our readers, we are sure,
gladly assist in promoting this object, which is
tem in national economy. They can co-operate
i us effectually in either of two ways—(1) By
ing a direct subscription for this Journal, or (2)
placing with a newsagent an order for its regular
very. Casual purchases—now here, now there—
te a serious discrepancy between supply and
and, and cause wastage of effort and materials.

has been declared that the frequent air-raids on
Venice and Paris have for their chief object the
ruin of those cities as centres of art and beauty.
istrous as the suggestion would have seemed
ore the war, there is now no reason for rejecting
Those who are at all acquainted with the psycho-
of the Germans are very well aware that envy is
lominating motive of this strange people, and
they cultivate this vice to an extraordinary
ree. Foreigners living among them have been
nished at its manifestations in all the relations
ife; and if the Germans envy each other with
intensity and high frequency, it follows natur-
that they make the most of their opportunities
unloading it on their enemies. Envy of British
lth, dominion, and power, actuated the Germans
heir insidious and persevering attempts to kill or
ure our commerce and to sap the loyalty of our
endencies, and at last induced them to try
ther they could not shorten the process by
ing open war upon us. Paris they have always
ed for its superior attractions to foreign visitors,
these attractions the Germans will do their utmost
estroy. If they could only succeed in reducing
ts fine buildings to ruins, all their own dull and
cities would be hung with bunting. There are
excellent reasons why they will never accom-
this vile purpose. In the first place, the French
their masters in air fighting; and, secondly,
ns have been taken to protect the monumental
dings and other art treasures in which Paris is
ch.

* * * *

hat any confidence we may have felt in the
riority of the Austrians to their German Allies
ivilised regard for art was entirely gratuitous
been proved to demonstration by the continuous
bing of Venice—with the avowed purpose, it is
, of destroying its beauty to such an extent as
ut it out of rivalry with Austrian "show-places,"
hich, it is well known, the Austrians have been
years past making frantic efforts to draw
thy visitors. To some people this seems a Bed-
te idea, transcending that of burning down a
e to roast a pig; but if those whom the gods
to destroy they first dement, it is evident that
Central Powers are rushing headlong to perdi-
Before very long, let us hope, the instigators
hese outrages will meet with their just recom-
e. Venice, naturally enough, is a city without
rs; but it would nevertheless appear that the
bitants—about a third of the original population,
rest having retired beyond the danger zone—
had, in spite of almost incessant bombing, a
surprising immunity from casualties. Sand-bags, it appears, are being used with excellent protective effect.

* * * *

Paris also is using sandbags very extensively for the protection of its important buildings, and it would appear that a more effectual—or, at all events, a more facile—means has yet to be discovered. One hears of householders in London who are piling sandbags on their bedroom floors regardless of the very imminent danger of loading them to breaking strain. They should be warned by local authorities that before fortifying themselves in this way they should consult an architect. Ignorant overloading of even the strong weight-carrying floors of the upper storeys of warehouses and factories has led to much disaster; and the bedroom floor of a suburban villa is about the frailest thing of its kind. As a matter of fact, we happen to be acquainted with an opulently constructed gentleman who, weighing some 22 stone ("including the bone," as "Punch" says of a remarkably lean specimen who turns the scale at 8-stone-3), now sleeps on the ground-floor, because on two occasions upper floors have collapsed under him when he turned over in his sleep. This, being an authentic case, may possibly be of use to cite (in very junior classrooms) as an example of the augmented effect of moving loads! It is, at any rate, significant of the inability of bedroom floors to sustain loads of sandbags.

* * * *

Notre-Dame is, of course, one of the buildings that the Parisians are taking all practicable measures to protect. Photographs of it in its present state show it very heavily and very reassuringly sandbagged. Nothing short of a direct hit could injure its fine façade, which, it may be recalled, is of the early thirteenth century, and has served as a model and an inspiration for the design of many other churches in France. Such of its sculptures as have survived the savagery of rabid Revolutionaries are fine examples of early Gothic work, but the noble figure of Christ on the middle pillar is modern. During the brief madness of the Revolution, a decree was passed (1793) condemning the building to destruction, but this decree was rescinded and only the sculptures suffered. In the same year the church was turned into a "Temple of Reason, a statue of Liberty being substituted for that of the Virgin, and in the choir a "Temple of Philosophy" in the Greek mode was set up and wild orgies were held in it. The building, which was consecrated in 1182, stands on the site of a church of the fourth century founded by Childebert the First, who, like Melchisedech, was both priest and king. The nave was not completed until the thirteenth century, and the building has seen many alterations. In 1845 there was an extensive and, on the whole, very judicious general restoration.

* * * *

A correspondent thinks that there is something in favour of house-backs that ought in fairness to be added to the observations on that subject in "Here and There" a fortnight back. "As your contributor 'Diogenes' has, I imagine," our correspondent writes, "what is metaphorically called 'a good broad back,' he will not, I am sure, object to my pointing out what I regard as a serious omission from his little homily on 'backs' (March 6, p. 97). He makes no mention of the beautiful 'Backs' at Cambridge, which, I venture to think, are renowned the world over. These, I think, might have been adduced as evidence that backs are not necessarily and essentially unlovely—that buildings may and should be made presentable fore and aft. These are, perhaps, the supreme example of beautiful backs, and there is no railway to befoul them; but there are others that, I am confident, have been influenced for good by the railways. I refer to those in the remoter suburbs. Now, in the first place, those remoter suburbs have been brought into existence by the railways; and secondly, it has been recognised by architects designing better-class houses to show their backs to the railways that special care should be taken to make those backs comely and presentable. Generally speaking, also, the occupants are actuated by the same object of keeping up appearances. They keep their lawns well trimmed, their herbaceous borders gay, their conservatories, tents, hammocks, garden furniture and adornments, pleasant to the eye of the train-traveller. Here, too, the railway itself becomes almost beautiful. Instead of grimy arches we get verdure-clad cuttings or embankments, which are often begemmed—sometimes, indeed, are a blaze of glory—with flowers escaped from the well-tended gardens that adjoin them." Our contributor "Diogenes" replies that, at the time of writing, he had the Cambridge Backs, and the backs at the back of beyond, at the back of his head, and the force of the contrast added considerably to the poignancy of his complaint of the slum-backs.

* * * *

We are glad to note that the writer of an article on "Housing After the War," in the current issue of the "Athenæum," agrees with our repeatedly expressed view that abrupt abandonment of Government control of building would be extremely inconvenient. Our contemporary says: "There is no doubt that some control of the supply and prices of building materials will be necessary. The demand will be much greater than the supply, and the position will be similar to the present position in regard to food (aggravated by the existence of strong combines)." This being the plain common-sense of the matter, we must confess some astonishment that an Institute meeting should have passed a resolution that, on the face of it, seemed oblivious of the ill consequences that must follow the withdrawal of restrictions at the very moment when they became of real use to the building industry. We can, of course, have no earthly motive for desiring to see those restrictions unduly prolonged, and we would here reiterate the advice that the Institute should be lynx-eyed to see that they shall cease simultaneously with the necessity for them, which will disappear when supplies and prices become normal. There must be no "sweet, reluctant amorous delay" permitted to officials anxious to retain lucrative posts and exhausting ingenuity to do it. That, we conceive, is the only danger to be apprehended; and even that, we cheerfully admit, may be more imaginary than substantial, British bureaucracy being, when all is said, the most honourable that the world can show. That is not to say, however, that it is entirely immune from minor human weaknesses.

* * * *

With regard to the modification of State control when the war is over, our contemporary thinks that "there is a good deal to be said for the State not only ensuring a fair price and an equitable distribution, but also bearing the portion of increased cost due to the necessity of reinstating depreciated plant and liquidating accumulated capital charges." With this we are rather disposed to agree. In fact, the suggestion seems so wise and just that we should be rather surprised to hear that it had not already occurred to the council of the National Federation. As a matter of principle, it seems no more than fair that if the S stops your machinery, you should be at least re bursed for the consequent damage to it, and that if State converts your capital charges into so much d loss it should make good that loss. This the S should do in its own concrete interest no less tha an act of abstract justice, because it becomes n than ever essential to promote rather than to dep or restrain every means of creating wealth and exte ing employment, in order that national liabilities be met and national prosperity ensured. Clea therefore, those manufacturers whose plant machinery have not been taken over by the State munition work, but have been rusting in idleness, h a strong case for compensation, and we trust that t will press it. An arbitration court to deal with claims should be set up as promptly as possible.

* * * *

War effects on building contracts are still giv trouble. An important case was before the co last week, when Mr. Justice Astbury heard, in Chancery Division, the action of the Elec Pavilion (Marble Arch), Ltd., v. Lorden. appeared that the plaintiffs leased from the grou landlord, the Duke of Westminster, in Octo 1914, two plots of land at the corner of Park L and Oxford Street, and on one of them bui cinema theatre, for which they paid £2,900 a y ground rent. In 1915 they assigned the second to Mr. Lorden, the builder, who covenanted to the rent of £2,100. Mr. Lorden, having spent ab £30,000 on the erection of a block of flats, refused a building licence to complete the w Nevertheless, the Duke's agents demanded f plaintiffs the full ground rent, and obtained a d sion in their favour under the Courts (Emerge Powers) Act, 1917. In the action tried last week plaintiffs sought a declaration that Mr. Lorden liable to indemnify them. In delivering judgm his lordship said, in effect, that, notwithstanding that had happened, the building agreement still h good, and he held that the defendant was liable indemnify plaintiffs for the rent they had paid the plot. He would not, however, pronounce a ju ment in respect of which execution could issue, there would be liberty to apply for judgment, in his lordship's suggestion of an equitable arran ment between all three parties should not result i satisfactory settlement. There, for the moment, matter rests, and possibly the terms of settlem may never be made public. In the circumstanc comment upon it would be a breach of decoru but it is permissible to say that, in the interests equity, further legislation seems necessary to prev the harsh application of pre-war law to war-t conditions.

* * * *

On page 133 we print the first report of the Par mentary Committee appointed to consider defects the existing system of acquiring and valuing land public uses. It tells us little that was not alre known. Everybody was well aware of the gr difficulties and embarrassments that beset transacti in land, which are attended by formalities, expen and delays that handicap enterprise to a crippling sometimes even to a prohibitive extent. These poi however, come with overwhelming force from a Par mentary Committee, which is not subject to the accu tion commonly levelled at land-reformers—that t are influenced by class prejudice, political bias, some other unworthy and selfish motive. As the Co mittee are unanimous in the conclusion that so simpler, more uniform, and less costly procedure compulsory acquisition of land has now become ess tial, their report may well be regarded as the first st ing-stone to reformed procedure in land transacti

HERE AND THERE.

N war-time there can be but little variety in the contents of the great reviews. One looks to them always for considered opinion of the graver issues f the day. Ordinarily those issues admit of a change f subject with every article, and art receives a fair hare of attention—commensurate, no doubt, with the nterest taken in it by the special class or classes of eaders to whom the reviews appeal, and with whom a ittle art goes a long way. To-day, art is too doveke for any place but the pigeon-hole. She is allowed o stretch her wings and coo a little in the "Fortightly," and one is grateful for this still small voice midst the din. In "Two Views of Greece," Miss onstance M. Villiers-Stuart contrasts art-inspired ellas with the sordid Greece of to-day, when Athens may be said to belong more to Oxford and ambridge, to the Sorbonne and Berlin, than it does o the merchants and bankers who now represent it," nd, before the war, the "schools" of the different ations at Athens "formed the nearest approach to a osmopolitan university in existence."

* * * *

Once again to bring the Parthenon and the Taj ahal into comparison would have been superfluous ut for this fruit of it: "The Parthenon had colour in rofusion when it left the sculptor's hands, but the olour was used in the dry Western way, as a conscious ecoration to define and bring out the form, not in its motional sense as used in Byzantine, Persian, and ndian building." But is this much more than conecture? Professor W. R. Lethaby, in his invaluable onograph on "The Parthenon and its Sculptures" Batsford, 1908), states that "the colouring of the arthenon followed an almost fixed tradition. At the heseum, for instance, Sauer found that the triglyphs nd mutules were blue, the drops and other small suraces red, the background of metopes red, and of the rieze blue, while all the mouldings were patterned." e does not doubt that the sculptures were richly oloured, although positive evidence is lacking. That he Greeks used colour freely, all scholars are agreed. hat they applied it "in the dry Western way" is erhaps too large an inference from the scanty data vailable. With yet greater daring, the lady ventures n a hint at the emotions stirred by the Parthenon, a eat that nowadays few men would have the courage o attempt. "The huge Doric pillars, springing from heir rocklike platform, at first sight recall the temple's orerunners by the Nile; the grave Egyptian feeling is uite unmistakable. But this impression quickly ades; the whole mind is absorbed and held captive, ot by the vast scale, but by the extraordinary sense f life with which each part is interpenetrated, by the ubtlety and balanced grandeur of the Greek genius." ptly and gracefully expressed! But the article is elightful throughout, and in these strident times one s truly grateful for a little grace and serenity.

* * * *

Almost all the rest, in this and in the other reviews, is ar talk, or speculation as to what is going to happen fter the war. Mr. Frederic Harrison, in his "Obiter cripta," to which one always turns with the assurance f getting the distilled wisdom that only a disillusioned ptimist can broach, discusses with unqualified pproval Lord Leverhulme's proposals for the coninuous running of machinery, with six or seven-hour hifts for the workers. "I look forward," Mr. Harrison ays, "with absolute conviction to this most blessed dvance in the life of Labour becoming the rule with ll great works." He does not suppose that this will ean millennial bliss; for he quotes and confirms his previously expressed opinion that the reorganisation of society in the interests of the masses of manual workers could only be brought about after an immense regeneration of mankind as a whole—a new world, moral, spiritual, and intellectual. Dealing with another topic (these "Obiter Scripta" are fine confused feeding), Mr. Harrison opportunely recalls that Lord Morley once told the Lords they liked land legislation as little as a butcher likes Lent.

* * * *

In the "Nineteenth Century;" Mr. Leslie Urquhart, in an arresting article on "British Policy in Russia," makes the timely if somewhat depressing reminder that we are Russia's greatest creditors, and have a large stake in her commercial development. It is not likely, therefore, that we shall do nothing to prevent Germany having it all her own wilful way there. Germany, says Mr. Urquhart, is intent now on the peaceful penetration of Russia. Wanting trade and food, the Germans, to trade successfully, must establish law and order in the Ukraine and also in Northern and Central Russia, with firm German control over all Russian affairs. All this, of course, was written in advance of the latest phase, in which Japan and America are showing a keen interest in the situation, to the great uneasiness of the Hun, whose penetration is likely to be much less peaceful than Berlin and Potsdam had pretended. Lord Sydenham, adopting the stale, flat, and unprofitable title of "The Peril of Socialism," does but scant justice to the sound substance of a valuable article. War having brought us a debt of six thousand millions, the vital condition of national solvency is an increase of production, which the vast resources of the Empire still undeveloped render possible with the assistance of the skill acquired and the immense extension of new machinery that have become available during the war. All must assent to his general conclusion that the problem of national reconstruction, with all that it involves to the future of the State and of the Empire, can be solved only by the application of science in the widest sense to the economics of commerce and industry, by hard work of hand and brain and by the mutual confidence and co-operation of labour and capital, under the guidance of a wise and far-seeing Government. That, I would remind Lord Sydenham, is one of the avowed aims of Socialists of a certain type, and would seem therefore to antagonise the title of his article. Is it possible that the most obnoxious feature of Socialism is its name? Lord Sydenham is, I think, irrefragable when he holds that organic changes in our industrial system when peace returns would bring about irretrievable disaster, and only a smooth transition from war to peace conditions can enable us to hold the place which we have won and to secure such an expansion as will enable the debt charges to be borne and the amelioration of the conditions of the national life which we all desire to be accomplished. Quite so. To fetch up with a jolt is almost inevitably to break or spill something, and that is why, I suppose, the demand for an abrupt cessation of building restrictions has been gently but firmly deprecated in this journal. Lord Sydenham comes nearer to the realisation of the title of his article when he attacks unsparingly the "Report on Reconstruction" prepared for submission to the Labour Conference at Nottingham: "It has evidently been written by a Fabian doctrinaire, and perhaps touched up here and there by a Labour leader in order to adapt it to the workers' point of view. The theories propounded," he declares, "were largely made in Germany, and the Germans may be trusted to make the most strenuous efforts to secure their adoption in all the Allied countries." That is indeed a peril of

Socialism—that the Germans will fool our workers to the top of their bent, and in the end fling them into the ditch.

* * * *

In something of the same strain is the article by Mr. Harold F. Wyatt on "The Threatened Suicide of British Democracy" in hankering after a League of Nations, which Mr. Wyatt declares would be a League of Criminals and Fools. Mr. W. H. Mallock, in "Capital and General Progress," takes for his text Lord Leverhulme's proposals, to which he yields a qualified assent, fearing that the advantages of intensified machine production are over-estimated. That is likely enough, but it does not vitiate Lord Leverhulme's main contention. Mr. Mallock concludes that the main reforms to which we may reasonably look forward as the means of approximately realising the promises which Lord Leverhulme outlines are: "(1) The more continuous use of machine-capital: (2) the improvement of machine-capital by the genius of the inventor, the discoverer, and the organiser; and (3) the practical development on the part of the wage-workers of alertness and energy now largely latent for want of sufficient inducement, in the way of rewards accurately graded, to exercise them." To secure this accurate grading, it will be first necessary to devise extraordinarily delicate machinery, equal to the impossible task of determining a man's value: which will be child's play compared with the difficulty of convincing the man about the accuracy.

* * * *

In the "Contemporary" the two articles that most attracted me are "The Reconstruction of the Universities and the Nation," by the Ven. Archdeacon Cunningham, and "Science and History," by Mr. F. S. Marvin. Dr. Cunningham's article is mainly a rather half-hearted and somewhat timorous plea for the widening of the scope of the universities. "There is need," he thinks, "for some guarantee of fitness to engage in particular lines of work, such as medical and musical degrees carry with them. There is probably room for a great expansion of this function, and for the universities to grant testimonials which shall be a guarantee that the student has received instruction in agriculture or forestry, or hygiene, or engineering, or some other line of work"—architecture, I would add, for it can so easily be made the nucleus of a liberal education. Mr. Marvin's article is rather disappointing, for it turns out to be but little else than a commendation of history. "Whenever the students of any one branch of knowledge step outside the strict limits of their own subject, they find themselves in the realm of history. . . . . If anyone proposes to give an art-student a wider outlook on his own business, he always turns first to history as the enlightening agency. How did the particular form of artistic expression spring out of the social conditions at the time of its appearance? What is the filiation of one form with another? What are the conditions most favourable for an artistic advance in the future?"

* * * *

Architecture, being both an art and a science, and involving, moreover, a considerable knowledge of history, should serve Mr. Marvin's turn quite admirably; and I could wish that educationists would dissect this subject with an eye to its value as an instrument of education. Taken in its amplitude, it should include a considerable knowledge of quite "a number of things," as Stevenson phrased it ("The world is so full of a number of things, I think we should all be as happy as kings"), and these should include hygiene, economics, and sociology; to say nothing of domestic economy, a recondite branch of learning in which, according to the ladies, we are, and are like to remain, hopelessly deficient.

DIOGENES.

THE PLATES.

Columbia University Library.

AMONG the very large number of import
buildings that stand to the credit of McK
Mead, and White, Columbia Univers
Library, in the opinion of many, holds pre-emin
position. As a composition in the classical man
it is admittedly one of the most striking achie
ments of modern times. Its monumental dign
and fine proportions are well shown in the admira
general view which, by courtesy of the publishe
we reproduce from Mr. C. R. Ashbee's new bo
"Where the Great City Stands," a notice of wh
appears on a later page in this issue. The work
the firm of which McKim was senior partner
perhaps exceeded in volume, variety, and aggreg
cost that of any other architect or firm of archite
of any era. A catalogue, in its bare enumeration
big buildings, reveals amazing versatility a
resourcefulness.

Grotesques from West Point, Virginia.

Mr. Ralph Adams Cram (of the firm of Cra
Goodhue, and Ferguson) has made a closer stu
of Gothic art than perhaps any other American.
results of his researches have been published in
work that is as notable for its ripe scholarship as
its graceful literary style. The firm of which
Cram is the leading member has erected many bui
ings in the Gothic manner throughout the Uni
States—one of the most notable being West Po
Military Academy, on which appear the f
grotesques shown on one of the plates in this iss
(These are also reproduced, by courtesy of the pu
lishers, from Mr. C. R. Ashbee's new book, "Wh
the Great City Stands.")

Eighteenth-century Ironwork.

These are two admirable specimens of Engl
eighteenth-century wrought ironwork. The up
illustration shows half an altar rail from Uxbric
Church, Middlesex, having two principal divisio
alternate panels containing a baluster of S-shap
scroll formation enriched with leaves. (Size, 2
10 in. high by 6 ft. 7 in. long.) The lower examp
is rectangular, with a twisted bar on either side a
a cresting of seven spikes with volutes. The pa
is divided by four bars, which meet in a knot in
centre, the four sections so formed being filled w
graceful scrollwork. (Size, 3 ft. 2¾ in. high by 3
8½ in. wide.) Both examples are now in the Victo
and Albert Museum.

House at Wellington, New Zealand.

This is a further example of the attractive wo
of Mr. W. Gray Young, F.N.Z.I.A., whose Bo
Institute was illustrated in last week's issue.

Detail from St. John's, Oxford.

In his monumental work on "The Old Colleges
Oxford," Mr. Aymer Vallance says: "The glo
and ornament of the whole college (St. John's), a
such that remains unrivalled by anything of
period in this country (except the famous equestri
statue by the same master-hand at Charing Cross)
a pair of life-size statues in bronze of Charles I. a
his consort, which adorn the niches of the front
piece over the east and west entrances. The nich
are shell-headed, and are surmounted each by a li
and unicorn, in high relief, and, in not very dig
fied, nay, almost skulking, attitudes. The pair
royal statues, misattributed to F. Fanelli,
Florence, were in fact modelled by Hubert le Sœ
whose agreement with Laud, dated March, 1633,
preserved among the State papers." The statue
Henrietta Maria, with its architectural surround,
illustrated on our double-page supplement.

A NEGLECTED ASPECT OF THE LONDON HOUSING PROBLEM.

BY G. LL. MORRIS AND H. W. PARNACOTT.

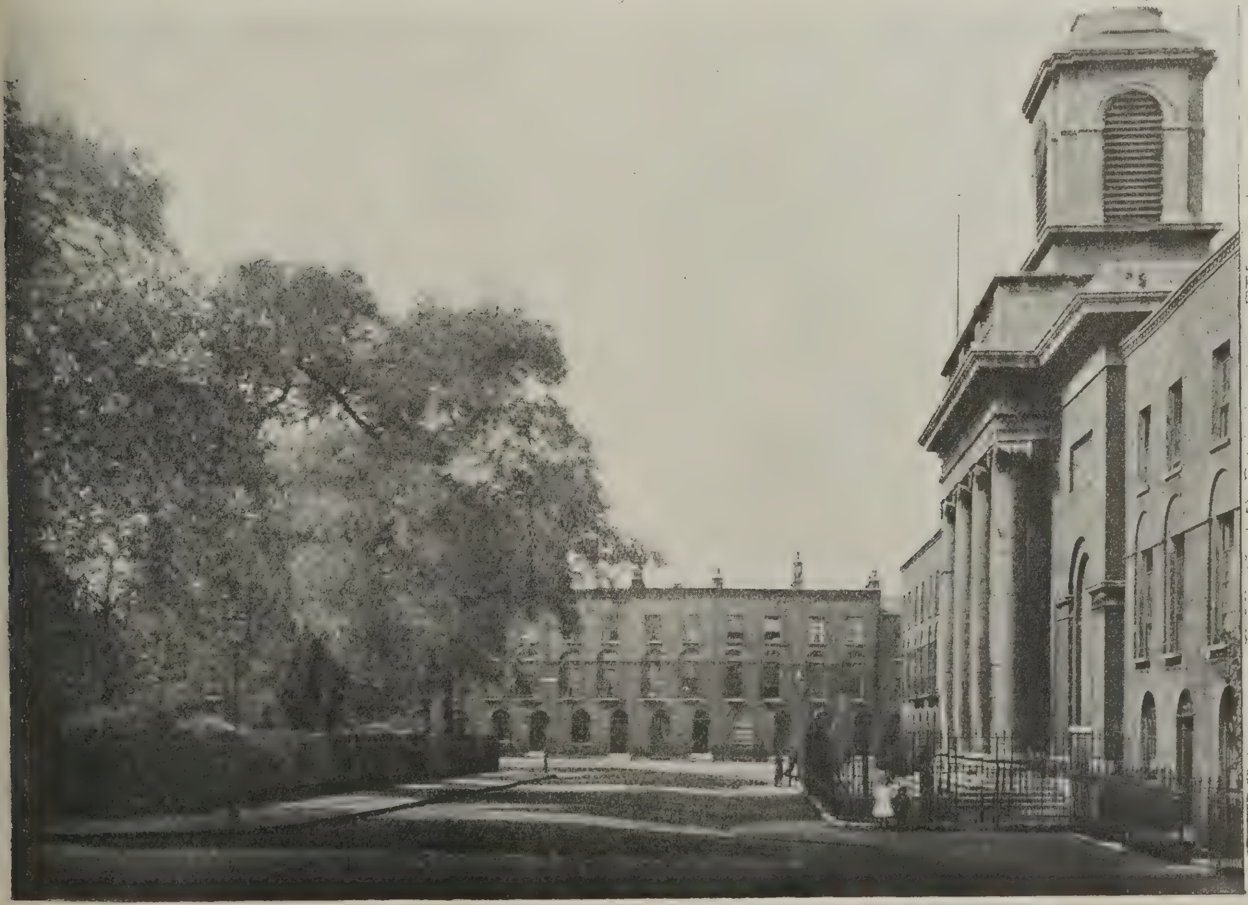
PREFATORY NOTE.

It is necessary to point out that although the Islington district is particularly referred to in the following article, other districts are a more or less similar condition. We may mention for example St. Pancras, Clerkenwell, Chelsea, Hackney, Kennington, South ensington, and even the more wealthy district of Belgravia. The conversion of houses into flats in these areas we have ready briefly and favourably referred to in the columns of the "Pall Mall" some little time ago, and while we recognise this step being necessary and desirable, our knowledge of the residential neighbourhoods of London has convinced us that the solution of is urgent problem will need to be approached in a variety of ways, their conversion into flats being only one way among others of most equal importance.

We must insist on a recognition of this neglected aspect of the Housing problem. Of all the schemes before the public at the present ne there is not one which attempts to deal with the opportunities presented by the inner London urban areas. Not to have realised the portance of this question seems to us to show a lamentable lack of foresight in responsible bodies dealing with reconstruction oblems. A preliminary step might be taken in the direction of an architectural survey of the most neglected squares, with a view their ultimate conversion into houses and flats to suit modern needs. These squares would well repay the careful attention of the wn-planner.

N "Highways and Byways in London," by Mrs. E. T. Cook, there is a passage in which the authoress warns the visitor to London to beware asking for topographical information "(save, ndeed, it be of a policeman), for two reasons—first, ecause no born Londoner of the great middle class ver knows, except by the merest accident, anything hatever about his near neighbourhood, and, secondly, ecause if he does get an answer, he is morally certain be misdirected." The only parts with which he will e familiar are some of the main thoroughfares, but utside these his knowledge will be of the most vague nd general description, and the various districts will e but names to him. He may know Upper Street slington, but will not have heard of Milner Square; e may know Goswell Road, but could not for his life irect a stranger to King's Square. Tottenham Court oad also will be familiar, but Tavistock or Fitzroy quare will be as strange to him as a Viennese suburb. It will be a surprise to him that there are residential districts just off the main thoroughfares, quieter than the newly built suburb from which he starts to his work every morning.

Should he chance at any time in the course of business to pass through one of these little known squares he will feel slightly aggrieved and considerably depressed by the rows of quiet, faded-looking houses, and will move quickly onward hoping never to return that way again. The same feeling appears to have inspired Disraeli when writing of the London squares. They reminded him of a large family of dull children with Portland Square and Portland Place for their respectable parents. The writer of "The Highways and Byways in London," and Mrs. Humphry Ward in her novel "Sir George Tressady," both write in a somewhat similar strain, and during the early years of the Gothic revival it was the custom to point to certain dwellings and districts in London as an illus-



KING SQUARE, CLERKENWELL, LONDON, SHOWING THE CHURCH OF ST. BARNABAS.

tration of the depths to which architecture had fallen; Gower Street, for instance, was called by Ruskin the *ne plus ultra* of ugliness in British architecture. The layman no less than the architect either condemned entirely or damned them with faint praise; both alike were in agreement as to their dulness and commonplace character. Probably no period in the history of English architecture has received such wholesale adverse criticism as the formal Classic period which extended from about 1765 to 1840. To-day we are just beginning to understand how ignorant and futile was much of this criticism, and to realise that these late eighteenth and early nineteenth-century houses will repay study. Their dignity, reticence, and admirable proportions are a belated discovery. Reared on the verities of the domestic revival heralded by Philip Webb, Norman Shaw, and others, and architecturally fattened on the rustic charms of the Hampstead garden suburb, we now turn with quiet satisfaction and delight to the architectural qualities of the streets and squares of this period. Professor Geddes, in his suggestive work, "Cities in Evolution," writing in praise of them, says: "Streets and squares are flanked with fine façades, each with its dozen or score of gre houses combined into a single palace front as long a cathedral, and in their way a supreme achieveme of the eighteenth-century Renaissance and th master architect, Robert Adam."*

During this period, including the latter half of t eighteenth and the early years of the nineteen century, several large estates were laid out in th spacious manner in the western district of Londo The planning of them generally included seve squares, each provided with a central garden for t use only of the residents living in the surroundi houses. Bedford, Tavistock, Mecklenburg, a Fitzroy Squares are all fine examples.†. In the Nor of London, off Upper Street, Islington, there are number of smaller squares and terraces in which t architectural traditions of the more wealthy distri are carried on in a simpler way. South-eastwa even in the depressing and sordid neighbourhood Clerkenwell, there were not so long ago gardens many of the houses and trees by the pavement si

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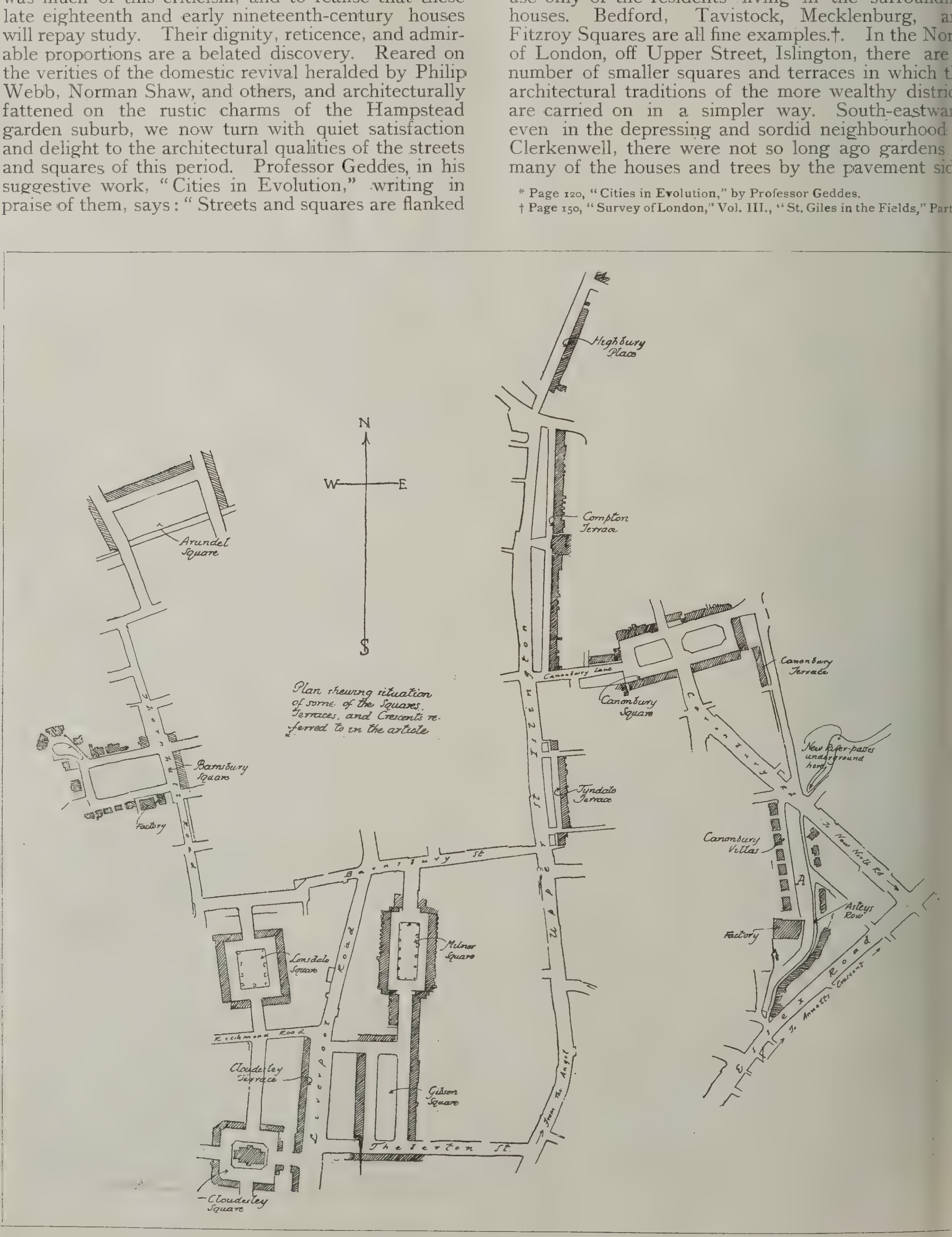
* Page 120, "Cities in Evolution," by Professor Geddes.

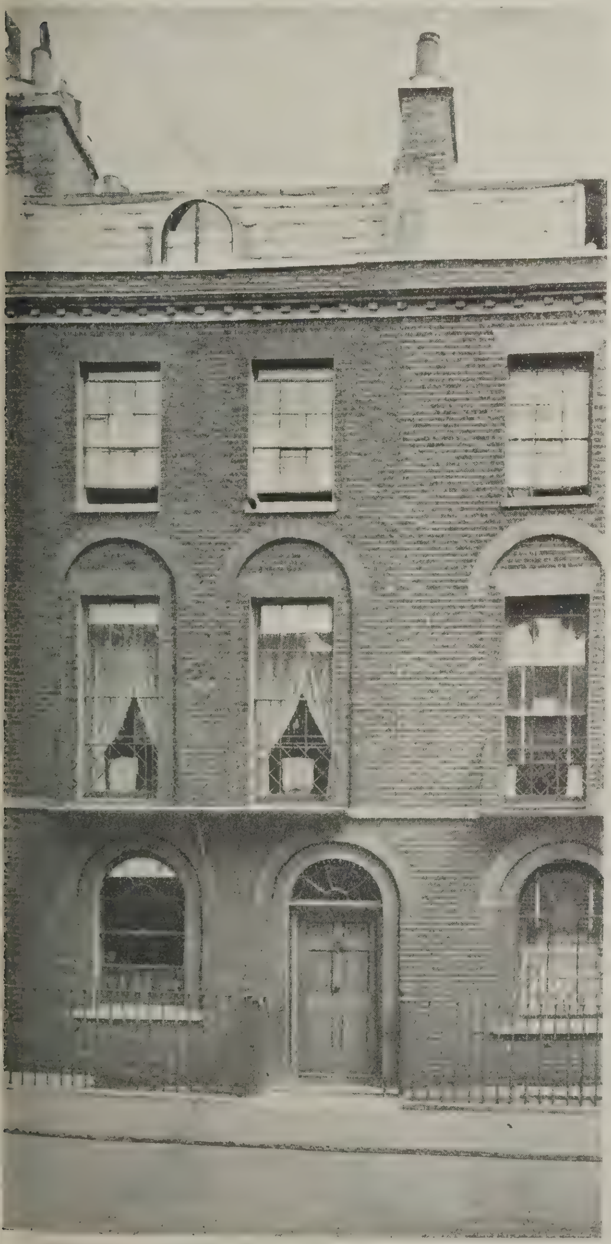
† Page 150, "Survey of London," Vol. III., "St. Giles in the Fields," Part

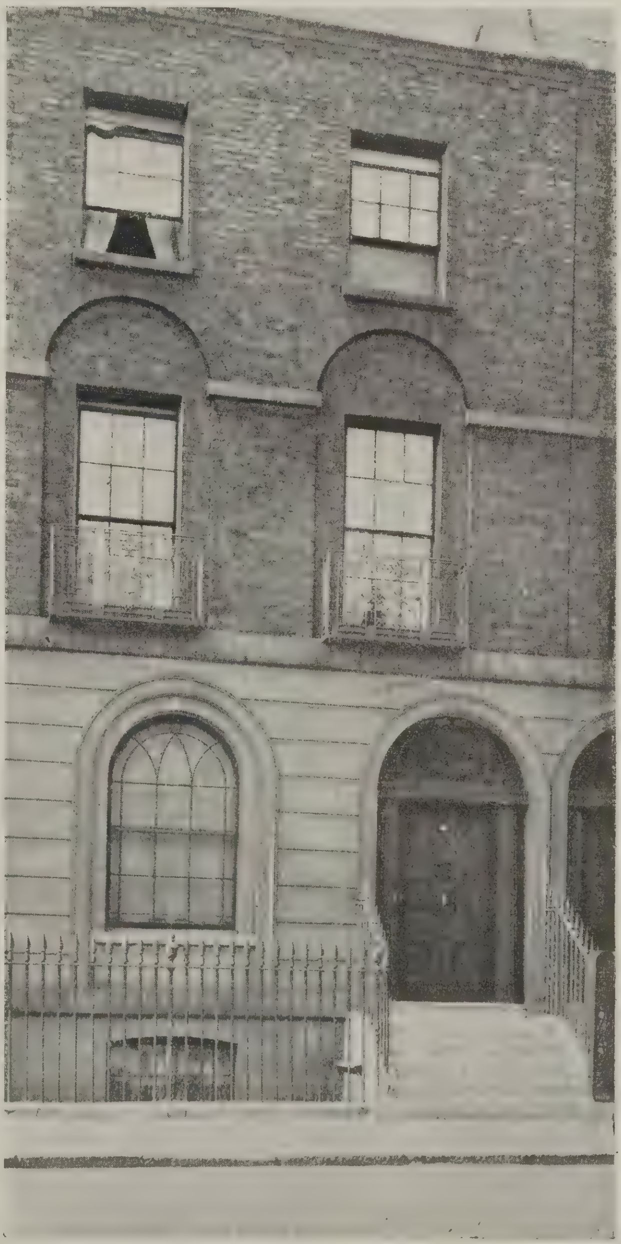


Plan shewing situation of some of the Squares, Terraces, and Crescents referred to in the article nd near at hand to the west of Goswell Road there is ing's Square Garden, flanked with simple brick uses, the interest of the square being focussed in St. arnabas's Church in the centre of the eastern side. orthward are other old suburbs, such as Pentonville, arnsbury, and Islington, where that lovable essayist, harles Lamb, lived for some time. He tells his riends all about his house there, the New River it verlooked, into which his old friend George Dyer alked in a fit of absent-mindedness.

"I have a cottage in Colebrooke Row, Islington," he ays, "a cottage, for it is detached, a white house with ix good rooms, the New River (rather elderly by this ime) runs (if moderate walking pace can be so ermed) close to the foot of the house, and behind is a pacious garden with vines (I assure you), pears, strawerries, parsnips, leeks, carrots, cabbages to delight e heart of Old Alcinous. You enter without passage nto a cheerful dining-room, all studded over and ough with old books, and above is a lightsome drawng-room, three windows, full of choice prints. I feel ke a great lord, never having had a house before."*

Where the river used to run is now one of the many eglected spaces of London, portions of it unenclosed and uncared for, and some of it enclosed with broken railings, and not a blade of grass to be seen except near the end approached from the City Road. Duncan Terrace Gardens on the west side is a fine terrace of houses. In different districts of London these quiet dwellings have housed some of our great men. William Morris and his friends Rossetti and Burne Jones lived in one of them—at 17, Red Lion Square. Thackeray made his home at 13, Great Coram Street, and lived with his mother at 18, Albion Street, Hyde Park; both these streets are still flanked with dwellings of this period. Many of the characters which people Thackeray's novels talk familiarly of the squares and crescents in the western areas. Colonel Newcome and Bonnie rented a house in Fitzroy Square, of which there is a melancholy account in Lewis Melville's "Thackeray's Country." "This is a depressing faded place nowadays," he says, "but once it was the centre of the artists' quarters, and in earlier times had been a fashionable quarter." The house referred to is described as vast but melancholy, with great black passages, a large black stone staircase, a cracked conservatory, and a dilapidated bathroom. Not long since it was a ladies' school in an unprosperous condition. The scar left by Madame Latour's brass plate


HOUSES IN NORTHAMPTON SQUARE, CLERKENWELL.


HOUSES IN MYDDLETON SQUARE, CLERKENWELL.

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* Page 514, "Life of Charles Lamb," by E. V. Lucas.

may still be seen on the tall black door in the style of the last century, with a funeral urn in the centre of the entry, with garlands and the skulls of rams at each corner.

At this point it will be as well to invite the Londoner of the great middle classes, previously referred to, to make another and more leisurely pilgrimage to a few of the districts where he will find squares, crescents, and terraces, similar to the one through which he passed in a somewhat depressed frame of mind. To remain cheerful on this journey he should keep before him their transformation from shabbiness and decay to that air of prosperity, well-being, and formal beauty which they once boasted. As he takes his way through these squares and streets let him picture the plasterwork and woodwork of the homes repaired and painted in a pleasant scheme of colour, the broken boundary railings to the garden squares restored, the grass plots rearranged and well kept, the gravel paths made tidy, and the shrubs and trees kept trimmed and cared for. He should have in his mind, also, that they can be internally adapted and converted to modern uses.

As he journeys from district to district other improvements will suggest themselves. He will want the gardens in the rear of the dwellings thrown together into a large garden square, with formal walks, grass, and beds gay with flowers and foliage. He will ask, too, without compunction for the removal of the churches in those cases where they fill up the squares. It is suggested that the Londoner should make his starting point from the end of Tottenham Court Road where it meets Oxford Street and Holborn. With this as a centre for his expedition and a map of London in his pocket he will be enabled to reach out to any number of neighbourhoods off the main thoroughfares with which we may assume he is familiar. Let him take a journey northward to Islington. A 'bus from the angle formed by Tottenham Court Road and Holborn passes along Theobalds Road and Rosebery Avenue, and therefrom to Upper Street, Islington, and Highbury Station.

Near at hand is Highbury Place, a fine row of domestic buildings. Formerly they were approached through handsome entrances for carriages and foot passengers—a portion of one of the piers still survives, abutting on one of the modern buildings. These dwellings are described by Mr. Cromwell as one of the finest rows of domestic buildings in the environs of the metropolis.* Highbury Terrace to the north-west stands upon more elevated ground, and was built in 1789, probably about ten years after Highbury Place. The Terrace houses consist of a central block of basement, ground, and three floors over, with side blocks a story lower. There is a distance of about the width of a house between the central and side blocks, which originally connected these by a ground floor story only. Passing again down Highbury Place, the ironwork over the entrances and the lamp standards which flank many of the doorways should be noted. The detail of the door cases must not be overlooked, and internally there is much dainty and refined woodwork. At No. 25 Joseph Chamberlain lived, and, just above, one of the houses has a delightful balcony at first floor level, with the Greek fret on the frieze under the cornice, and shell-shaped ornaments applied to it over the openings. Highbury Place appears to have been built between the years 1774 and 1779. Neither of these rows of domestic buildings has yet been built in, and they still stand amid green fields, as in former years. These buildings, too, are in little need of improvement, except that, as is commonly the case all over London, they suffer from want of periodical atte tion. Most of the other buildings it is proposed visit in Islington have long since been surround and buried in populous districts.

From the southern end of Highbury Place on t way to the Angel is Compton Terrace, situated the northern end of Upper Street. It bears t family name of the Marquess of Northampton, a extends as far as Canonbury Lane. The centr portion was built about 1805, and at that time co prised a chapel with a block of two houses on ea side; since then it has been extended considerab and a new modern chapel in red brick and stone h taken the place of the old classic building call Union Chapel, the front of which was built in Po land stone. The houses on each side are st standing, with further additions in harmony wi the earlier buildings. It need hardly be adde perhaps, that the new chapel is entirely out character, although of its kind it is not witho merit. Compton Terrace, like Tyndale Place, bo on the eastern side of Upper Street, is set back, a a wide grass plot planted with trees and shru extends the whole length of the terrace, and divid the subsidiary road next the terrace from the ma thoroughfare. The grass plot in the front of Compt Terrace is well kept, and forms a gay and pleasa oasis.

(*To be concluded.*)

CORRESPONDENCE.

Preparing for Peace.

To the Editors of THE ARCHITECTS' AND BUILDER JOURNAL.

SIRS,—Mr. Quennell's articles entitled "Prepa ing for Peace" are interesting as an expression the bewilderment and misgivings with which arc tects face the future. But, if I may say so, t suggestions he has to make are entirely inadequa to meet the problem which confronts the professio Mr. Quennell apparently lives too much in the pr sent and our immediate past, has too much respe for the achievements of industrialism, and too lit knowledge of the world of labour, to understa what the future is likely to bring forth and wh policy architects must pursue if they are not suffer extinction. I would answer the questio "Where will architects come in under the sche of reorganisation as foreshadowed in the Whitl Report?" by replying that architects are not like to come in at all, or, if they do, it will be only some subordinate capacity as tame archite robbed of their independence. For the trend of t age being to turn things upside down, we shall fi that under this scheme—the first effort of t modern world to retrace its steps back to the Mid Ages and to restore the guilds—the mediæval id of organisation will be reversed. The financier going to be at the top, while the architect, who t day performs the function of design which in t Middle Ages was performed by the master build will be underneath him. The chains may gilded; but they will be chains all the same.

No doubt this sounds very alarming. But the is no need to be depressed, for our servitude ne not last long. Our industrial system will not able to attain stability by standing on its head, a so there is little likelihood of the Whitley sche hardening into a permanent arrangement. It h nothing to say about the wage system, the dema for the abolition of which is at the bottom of t labour unrest. In these circumstances, if good-w should for the moment prevail between employe and employed, the truce would only be temporar

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* Pages 297 and 298, "Walks Through Islington, 1835." By Thomas Cromwell.

The old problems will reappear, and as under existng economic arrangements they must remain inoluble, I conclude that the parties concerned can an only come together to quarrel. So it will be as ong as the industrial system remains. The disuptive tendencies which are inherent in it are not o be allayed merely by a scheme of organisation uperimposed from above. They can only be radicated by such a change in the heart and mind f the people as would by its own dynamic power ransform such an organisation into something esembling the mediæval guilds—the system under vhich industry at all times has been organised, vherever men were free to co-operate together.

We are now in a position to consider the policy vhich architects should pursue in the light of these mpending changes. If the profession pursues its usual hesitating policy, thinking only of the expediency of the moment in the old weak-kneed compromising fashion, then I am assured it is doomed, or it is rooted neither in any firm economic soil nor n the affections of the public or the building trade, either of which might preserve it. In the clash of orces which will certainly accompany the period of econstruction after the war the interests of the architect will be ignored. We shall be squeezed out; treated with the undoubted contempt with vhich the Government has treated the profession over the Housing Scheme—a contempt, it must be admitted, which is not altogether undeserved considering the undignified way the R.I.B.A. surrendered the claims of architecture and froze on to the Government scheme. The profession, like Lazarus, having accustomed itself to live on the crumbs that ell from the rich man's table, finds out in these days of short rations that Dives has no crumbs to spare, and is indifferent to the fate of men who show hemselves willing to sell their birthright for a mess of pottage.

If experience can teach us anything, it should each us that the time for compromise is over, and hat if architecture is not to disappear altogether rom the modern world the fundamental facts of the situation must be boldly faced. The most fundamental fact of all is this—that industrialism and architecture are incompatible, inasmuch as wherever industrialism expands the sphere of architecture tends to contract. It is no use trying to explain this away; to urge that architects must have an engineering training and so forth; the fact remains that what we understand by architecture as distinct from engineering has for a ong time in the modern world been a steadily diminishing quantity. And the question comes, are ve, the guardians of architecture, to allow this endency to proceed unchecked? The outposts have all been surrendered, but the citadel is still in our hands. Are we going to surrender it without a fight? Has not the time come for us to put our backs to the vall and challenge this tendency? For it is only by howing fight that we can regain respect. When one ealises that industrialism has been challenged by hinkers in every branch of thought, and is being uccessfully challenged practically in the economic phere, one wonders why architects should treat it with uch deference. Has not the time come for them to add their testimony now, at the eleventh hour? For ndustrialism is tottering to its fall. Let us make no mistake about that. It has undermined the whole ocial foundation of every Western nation, and o-morrow will be engulfed in the chaos it has created. The opposition of industrialism and architecture has ts counterpart in the opposition of industrialism and ife, between which compromise will not be much onger possible. We are indeed faced with something vorse than revolution; we are faced with social dissolution and decay.

If I have painted the picture black—and it is no blacker than I believe it to be—it is not merely because I want architects to realise the perilous position in which they stand, but because there is a path of escape open to us if we have the courage to take it. It is to seek the democratisation of architecture through the medium of Building Trade Guilds. Instead of seeking the creation of a guild of architects, which could only increase our isolation, we should seek the removal of the class barrier which now separates architects from the building trades, and distribute architects among the various guilds to co-operate with the building trade craftsmen. Such a measure might not preserve the profession in its integrity, for, indeed, that is an impossibility; but it would give us an economic base, while it would preserve our revived traditions of architecture—which are not to be valued too lightly—by giving the workers an interest in the cultural aspect of their work. At any rate, if salvation is not to be found along this path, it is not to be found at all. For it means that social conditions after the war are going to be much worse than even I anticipate, and nobody, I imagine, would accuse me of being unduly optimistic.

Finally, a word about the Neo-Grec movement. Mr. Alban Jones wonders whether, with its strong academic tendencies, it can prove an architectural expression of the more humanising spirit that will dominate industry in the near future. To that question I imagine there can be only one answer. It will not. Servile in intention, it will certainly not recommend itself to the democratic guilds of the future. On the contrary, any widespread and popular revival of architecture must be based upon our vernacular traditional building, while the higher forms of architecture will be merely an expansion or further development of these traditions, which indeed is the direction modern architecture would have taken had not the promise of the nineties been sidetracked by the coming of the Neo-Grec. How it came about that architects should disregard the lessons of history and revive the sophistries and pedantries of the late Renaissance, knowing full well that they strangled all vitality in architecture in the eighteenth century, I can only explain on the hypothesis that academic rather than architectural considerations were uppermost in their minds. Anyway, I am assured that the movement owed its doubtful success to a phase of economic development, as I am equally assured that it will disappear in the near future now that that phase is passing away. It has always been a mystery to me how the Neo-Grec succeeded in inspiring anyone. Its effect upon me, to use an Americanism, has been "to bore me stiff." Meanwhile, it is to be observed that there is a possible connection between the Neo-Grec heresy, that architecture and building are not of one and the same substance, and the surrender of the R.I.B.A. If the Institute had believed that the basis of architecture is to be found in the health and vigour of the traditions of ordinary building, would they have fallen in so readily with the standardised house scheme, which, as Mr. Quennell rightly says, means stagnation and decay? It was, I imagine, because they lacked such conviction that they became party to it. It was because "they had gone a whoring after strange gods" that they stumbled and fell.

ARTHUR J. PENTY.

66, Strand-on-Green, W.4.

[Even those who are in profoundest disagreement with Mr. Penty's views will, we are sure, be greatly interested in his characteristic letter, which we are glad to print, because there was never a time in which outspokenness could be more valuable and essential. We are not concerned to advocate any particular set of fixed ideas on this vitally important subject, and shall therefore be glad to give publicity to all types and shades of opinion upon it.—EDS. A. AND B.J.]

BOOK NOTICE.

*A Study in the New Civics.**

Mr. C. R. Ashbee's "Study in the New Civics" is diffuse, inconsequent, heterogeneous, and so entirely delightful that one would not have it other than it is. "Study" is too severe a word to apply to so finely confused an olio of wit, wisdom, and philosophy, of art, craft, and practicality. Yet, possibly, Mr. Ashbee takes his study joyously and believes in scattering lavishly the joyous fruits of it, art and severity being scarce cater-cousins. Certainly his intentions are serious enough, or, perhaps, one had better say purposeful enough; for, while his manner is light-hearted—and he is more frequently anecdotal than didactic—there is no mistaking his object of leaving the world more beautiful than he found it, nor the earnestness of his determination to do this by every legitimate means.

In this book he is mainly concerned to make our cities better places in which to live. To this end he relates what little has been done and suggests how much more might be done if people could only be got into the right frame of mind for doing it. He is firm in the faith that we are making a sure if slow ascent towards "Truth, Goodness and Beauty"—"All sweet things, brother," as Jasper Petulengro would have said—and he has done muc by precept and example, to help upward. Mr. Ashbee's peculiar missi seems to be to reconcile art and pra ticality; and in this book he seeks to pro that "through the city we focus civilis tion," that "the new relationship of ma to life, which machine industry h brought with it, finds its fullest expressi in the new life of our city" and that "th implies that through the city and its prop adjustment to mechanical conditions w man realise again the value of art."

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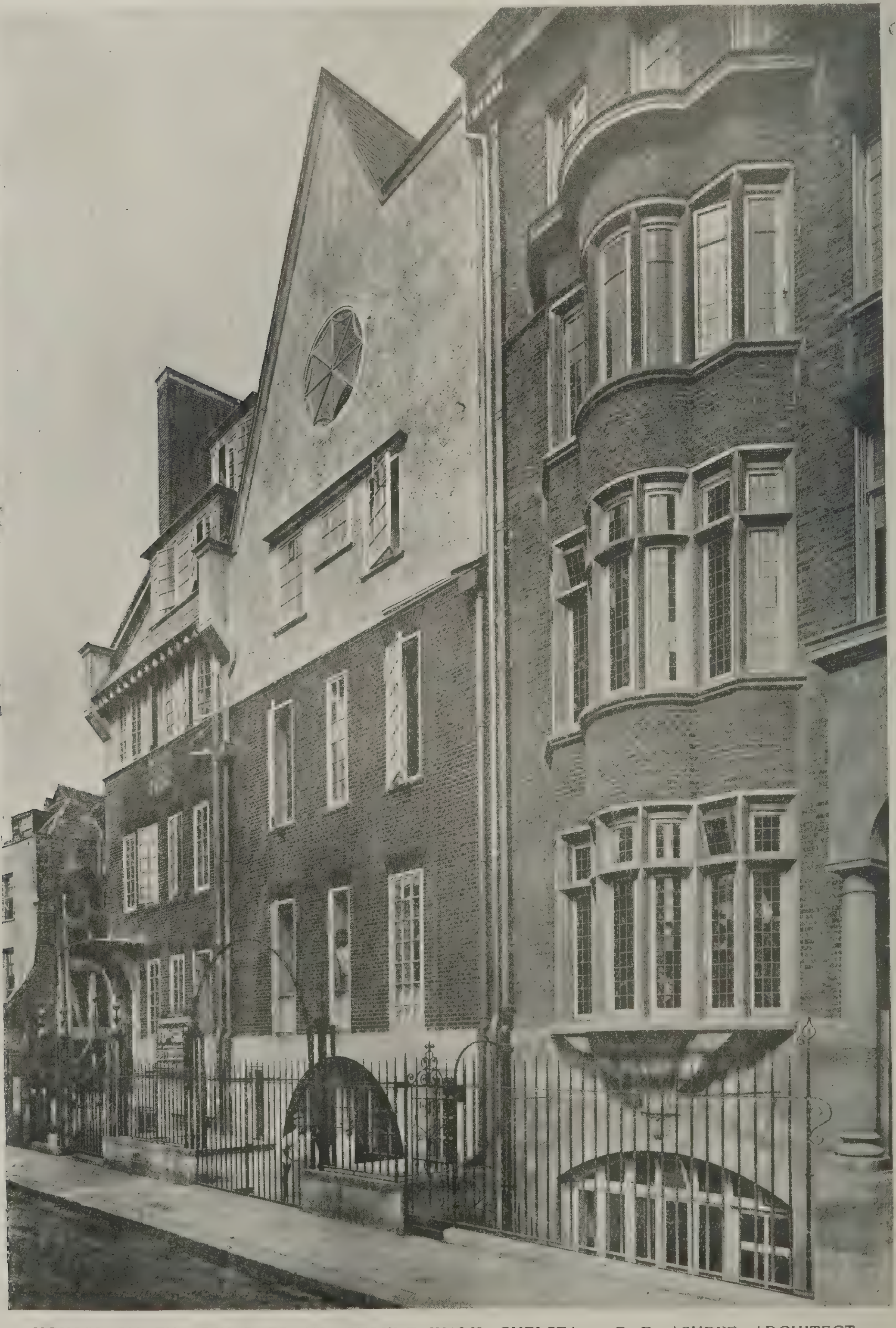
* "Where the Great City Stands." A Study in t New Civics. By C. R. Ashbee. Published by t Essex House Press, 37, Cheyne Walk, London, S.W and B. T. Batsford, Ltd., 94, High Holborn. Pri 21s. net.



HOUSES ON THE RIVER-FRONT, CHEYNE WALK, CHELSEA. C. R. ASHBEE, ARCHITECT.

(*From "Where the Great City Stands," by C. R. Ashbee.*)

RECONSTRUCTION AND THE ACQUISITION OF LAND.

THE Minister of Reconstruction, Dr. Addison, has issued for publication ne first report of the Committee appointed nder the chairmanship of Mr. Leslie cott, K.C., M.P., to consider defects in ne existing system (1) of acquiring, and) of valuing, land for public purposes nd to recommend any changes that may e desirable in the public interest. The ommittee's first report deals with the eneral principles of acquiring land for ublic purposes. The valuation of land nd special aspects of the question of cquisition—*e.g.*, in connection with ining, etc.—will be dealt with in subseuent reports.

The whole inquiry has an important earing on post-war problems of recontruction, the essence of which lies in creasing national production to make ood the wastage of war. To achieve this nd the importance of a right handling of ne question of land cannot be overstated. n certain aspects land is obviously the nmediate source of national wealth, as, or example, in agriculture and coal and on mining, with all their prospective evelopments, such as forestry, petroleum nd other mineral resources. Less obviusly, perhaps, but no less actually, is the cquisition of land of vital necessity to lmost every productive enterprise. The eed for suitable sites, with adequate neans of access and communication, ater and power, almost inevitably binds own commercial undertakings in a nickly populated country like ours to the se of certain limited areas of land.

It is owing to this special position of nd as a "necessary commodity of mited extent" that British law, in ommon with that of all highly civilised ations, recognises a special limitation of ne rights of private ownership in land by uthorising compulsory expropriation hen public interest demands it, subject just compensation for the owner. The ommittee, therefore, address themselves n the first place to discussing the adequacy of existing means for giving effect to this admitted principle.

The result of their investigations is in some respects startling. Elementary education, for example, is one of the primary needs of the nation, and a normal school site does not involve the purchase of more than part of an acre. But the educational authority resorting to compulsory powers may be forced to incur an expenditure of some hundreds of pounds in costs, and a delay of several years, before obtaining possession of the required site. A special Parliamentary Bill is necessary for every compulsory acquisition of land by the Office of Works (who are responsible for housing Government departments) and for every post-office site compulsorily acquired. Even for such requirements as naval defence and the provision of lighthouses Government departments have, in cases cited in the report, paid more in costs for the exercise of compulsory powers than the total value of the land acquired. Private promoters of commercial enterprise, no matter how desirable their schemes may be in the national interest, are even more unfortunately situated. The expenditure upon counsel, agents, and witnesses (who may have to appear again and again in the course of applications under the present Private Bill or Provisional Order procedure) renders compulsory acquisition of land virtually prohibitive for any private promoters save large corporations and the wealthiest companies. The ordinary man is left with the alternative of paying the landlord's price, should he consent to fix one, or abandoning his enterprise.

The Committee's unanimous conclusion is that some simpler, more uniform and less costly procedure for compulsory acquisition of land has now become essential. Their chief concern is as to the kind of tribunal by which compulsory powers should be granted. They are opposed to any wholesale delegation of such jurisdiction from Parliament to Government Departments—who would thereby become the judges in cases in which they themselves were interested, directly or indirectly, one way or the other. The alternative of setting up a Standing Judicial Commission for this purpose is also rejected by the Committee—though most of them are legal men. They point out that such Commissions tend almost necessarily to become bound by their own precedents and stereotyped in their decisions; whereas the prime need of the new general machinery for the grant of compulsory powers is that it should be sufficiently elastic to adapt itself readily to the progressive needs and ideas of the nation at large.

The Committee's solution of the problem is directed to mending, rather than ending, the existing jurisdiction of the Parliamentary Committees for the investigation of schemes involving compulsory powers. The drawbacks to these tribunals are that their procedure is slow and costly, and that its extension to all proposals for the compulsory acquisition of land in future would make impossible demands on the time of members of Parliament. On the other hand, the investigations of such schemes by Parliamentary Committees in the past have admittedly been marked (as the report emphasises) by a very high standard of justice and common sense, and their decisions, as being those of Parliament itself, have an element of authority and elasticity not attainable in the case of any purely extra-Parliamentary Tribunal.

The Land Acquisition Committee accordingly propose that a general sanctioning authority for the grant of compulsory powers in regard to land shall be set up in the form of a panel of Commissioners, including members of Parliament and others of similar standing with general experience of affairs. Government officials or professional experts, as such, will not be included in the panel, but will have their proper opportunity of appearing as witnesses before the Tribunal. Any scheme involving the compulsory acquisition of land will be publicly (and so far as possible, locally) investigated by Commissioners chosen from this panel; and he decision of such Commissioners will be final on all questions of fact or the intrinsic merits of any scheme.

Full Parliamentary control over matters of policy will be retained by providing for direct reference to Parliament upon any unsettled questions of principle, and all members of the panel (Parliamentary and non-Parliamentary) will be periodically appointed by a Parliamentary Selection Committee drawn from both Houses.

The sanctioning authority will thus become to all intents and purposes a sub-committee of Parliament, with co-opted members from the large body of public-spirited men of all classes outside Parliament whose general experience fits them to act as Commissioners for such a purpose. Delays will be reduced by permitting schemes to be submitted to the sanctioning authority at any time of the year (instead of only during two months, as at present), and a final decision upon any scheme should normally be reached in a few weeks. Provision is made for reducing expenses by giving the Commissioners themselves a wide discretion over procedure and costs, with a direction to exercise their discretion in each case with a view to curtailing unnecessary evidence and discouraging unreasonable contention on either side.

The Committee, in commending their report to the earnest consideration of the "powerful interests to whom some of their conclusions may seem hard of acceptance," point out that these conclusions involve no new principle and no element of confiscation. "Peace has been rudely shattered and its accumulations of wealth have been dissipated for a generation. The loss can only be repaired by the strictest possible economising of individual energy and the strongest possible stimulation of the nation's productive resources. The means necessary for production, and for the general well-being of the community (including the indispensable element of land) must be rendered accessible to industry and to responsible administrative authorities by a path direct and unencumbered. Avoidable complexities and unnecessary intermediaries must be eliminated."

FUEL ECONOMY IN HEATING.

In the course of his presidential address to the Institution of Heating and Ventilating Engineers Mr. Edgar Herring said that the experience of over thirty years had convinced him that the securing of the highest possible efficiency with a minimum fuel consumption has not as a rule received the attention from heating engineers its importance demands, and that although central heating systems necessarily show very considerable economies in comparison with open fires the most economical results have not always been obtained.

Dealing with the principal points that affect the economical working of a hot water heating apparatus he said that although in a few cases actual tests of sectional boilers have shown efficiencies of 60 to 65 per cent., such a result could not be obtained with several of the types on the market. He thought that in the endeavour to crowd the heating surface into the smallest space the combustion chamber is cramped and the relatively cool water-backed surfaces brought into too close proximity to the fire. The sectional boiler is a decided improvement on many of the old types, but it must not be regarded as incapable of further improvement, and it should be possible to design a hot water supply boiler with a higher efficiency than the dome-top type at present in general use. The president also condemned the method of obtaining a supply of hot water by means of a boiler at the back of a kitchen range as leading to a consumption of fuel out of all proportion to the results obtained, and he expressed the view that if economies are to be secured in the use of fuel in domestic buildings the present type of range for cooking purposes and the back boiler for hot water must be banished.

Boiler Capacity.

The installation of a boiler of insufficient capacity for the work to be done invariably leads to waste, the reason being that the stoker in his efforts to heat the building in cold weather keeps up a heavy fire and stokes at frequent intervals with dampers and draught doors full open. Under such forced firing conditions the temperature of the smoke pipe affords unmistakable evidence of wasted heat being carried up the chimney. Efficiency can be secured only by installing a boiler appreciably above the required capacity, so that it may be worked with a reasonable amount of attention, normal draught, and a temperature of the flue gases not much above 350 deg. F.

The ideal conditions are that a boiler should generate and transmit to the heating medium just that number of thermal units required by the building to make good the heat losses. These often vary from hour to hour, and as the attendant cannot be expected to stand by all day regulating the draught door and damper some form of automatic draught regulator is obviously desirable. To fit such a device is not expensive and its cost is usually covered many times over by the saving in fuel arising from proper regulation of the fire

Heating Surfaces.

The correct proportioning and disposition of the heating surfaces have an important bearing on economy. Overheating of a room naturally leads its occupants to open the windows and thus dissipate heat, while if one or more rooms are insufficiently warmed the apparatus is generally worked at a higher temperature than is necessary for the remainder of the building. The importance of controlling room temperature is fully recognised in America, where large sums are expended in installing systems of thermostatic regulation.

A carefully calculated and intelligent lay-out of the piping scheme is as important as the correct proportioning and disposition of the heating surfaces. Without an intimate knowledge of the methods of calculating and balancing circulating pressures and resistances it is not possible to estimate the resulting temperatures of the heating surfaces with any degree of accuracy, and unless pipe sizes are correctly calculated there must be unequal heating, which will lead to waste of fuel. In a gravity installation the mains and connecting pipes not required for heating purposes generally represent from 30 to 40 per cent. of the total, and in extended lay-out frequently more. In many cases this percentage could be appreciably r duced if trouble were taken to make t necessary calculations.

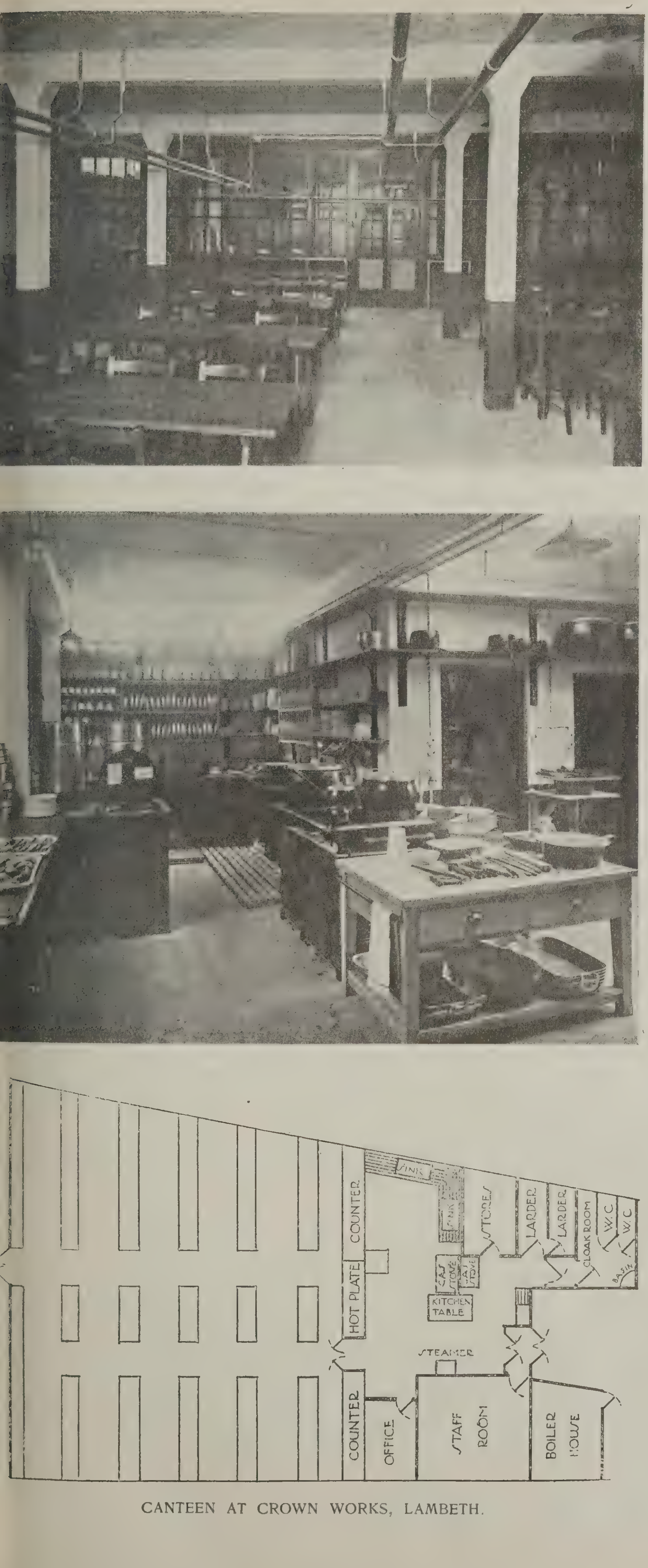
The saving that can be effected in fu by lagging boilers and the pipes which a not required for heating purposes with a effective non-conducting composition is obvious that it is inconceivable that th expedient should be neglected; yet in large proportion of institutions lagging entirely omitted or is confined to the boil and, possibly, a few pipes in the stokery.

Heating Economy in Factories and Workshops.

Until twenty-five years ago heatin engineers as a rule were employed only carrying out more or less simple forms installation, but to-day many of th larger firms are engaged on the erection extensive steam installations on pressu and atmospheric systems, mechanic warming and ventilation, drying processe and even steam power plants. Such wo affords exceptional opportunities for effec ing economies, because in factories a co siderable waste of heat arises from variety of causes, not the least being du to the fact that no care is taken so to co struct the building as to conserve the he generated. A factory or workshop with a abnormal amount of glass surface, lig roof construction, and comparatively th walls (often of concrete 4 in. thick) cann possibly be efficiently warmed except b the provision of a vast amount of heatin surface and the consumption of an exce sive quantity of fuel. The time ha arrived when heating engineers, respo sible as they are for a very appreciab percentage of the fuel consumption of th country, should urge upon architects an others the grave necessity of considering from the point of view of heat conserv tion, the materials and methods of co struction adopted in all classes of buil ings.

Another important point in connectio with fuel economies in factories and workshops which must receive more attentio in future from the heating engineer is th utilisation of exhaust steam for heating boiling liquids, drying, and other pu poses. Modern atmospheric and vacuu systems render this quite feasible, and is difficult to understand why progress i this direction has been so slow. If an estimate could be made of the annual therma value of the steam blown into the atmosphere from innumerable engines, pump defective steam traps, etc., and the discharge of condensed water into drains, th waste of fuel involved would be seen t be astounding, especially when it is remembered that every pound of steam represent approximately one-tenth of a pound o coal. In every case where waste steam ca be usefully employed for warming or drying purposes or the boiling of liquids advantage should be taken of it.

The efforts of heating engineers to effec economies must be seconded by intelligence and care on the part of the me who run the installations. Too often these efforts are nullified by the ignorance o the stoker. At present an employer is, a a rule, obliged to accept a stoker at his own valuation, and find out by experience whether he is capable or not. This state of affairs might be remedied, or, at any rate, considerably improved, if facilities were afforded at technical schools for any man to qualify as a certificated stoker by taking a short course in the rudimentary principles of combustion and practical firing of boilers.



CANTEEN AT CROWN WORKS, LAMBETH.

SIR ARTHUR YAPP OPENS A MODEL WORKS CANTEEN.

An interesting ceremony took place last week when Sir Arthur Yapp formally opened a new canteen which has been provided by Messrs. Higgs and Hill, Ltd., builders and contractors, for their staff, at the Crown Works, South Lambeth Road, London, S.W. Mr. William Higgs, in introducing Sir Arthur Yapp to the very large assembly of workpeople, briefly traced the development of the firm from the early days when his father, on the first Saturday half-holiday, entertained his workmen, with their wives and families, at his grounds at Stockwell, and the speaker was kept busy giving the children rides on his pony. After that there were annual teas and entertainments, usually held in the joiners' shops, until the rapid expansion of the firm necessitated larger accommodation, which was found at the Crown Swimming Baths. The firm earnestly desired, he said, to perpetuate the kindly feeling of friendship and goodwill made manifest in those early days, and the canteen which had been erected for the comfort and convenience of the workpeople was an evidence of the survival of this kindly spirit. He was very grateful to the Y.M.C.A. for its advice and assistance, more especially because he had enjoyed the personal friendship of its founder, the late Sir George Williams.

Sir Arthur Yapp, in declaring the canteen open, said that the Y.M.C.A. felt it a great privilege to be invited to associate with large manufacturing firms in providing proper accommodation for the men and women employed in the works. This canteen, he understood, would be run on business principles, and there would be no "patronage" in the objectionable sense of the word. The aim was to provide not only for the needs of the inner man, but for his even more important intellectual and spiritual needs. The canteen had been placed under the direction of Mrs. Ramsden and a committee of ladies who have had considerable experience in the conduct of canteens for munition works. It should be realised, he said, that this canteen was a link added to a chain that reaches round the whole world. More than a hundred canteens in munition works had been established, and were being maintained, with the assistance of the Y.M.C.A.

Sir Arthur gave a most interesting account of the work of the Y.M.C.A. upon the various fronts, as well as in munition and other works.

A very hearty vote of thanks, proposed by Mr. Ernest Hill, was carried by acclamation, and Sir Arthur Yapp was subsequently entertained at luncheon by the directors and staff of Messrs. Higgs and Hill.

We take leave to congratulate this progressive firm on being well to the fore in the great movement for the welfare of the workers. From every point of view this is an enlightened and a thoroughly humane policy, and is, we feel sure, welcomed by the workers not so much for the material advantages it brings them, although these are fully appreciated, as for the evidence it affords of the kindly feeling that we all realise ought to enter more largely than hitherto into the relations between employer and employed. We are indebted to the courtesy of Messrs. Higgs and Hill for the photographs and the drawing from which the accompanying views and plan of their canteen have been reproduced.

ENQUIRIES ANSWERED.

Stress Diagrams for North Light Trusses.

" STATICS " writes : " Please tell me how to set up the stress diagrams for the two types of roof trusses shown on accompanying sheet. Span equals 25 ft. Roof load equals ½ cwt. per ft. super. Load on tie-beam from shafting equals 2½ tons dead load applied in two places from two lines of shafting equal to 1¼ tons dead load each. The position of this shafting would vary with each span, so tie-beam should be calculated to carry it at weakest points."

—Figs. 1 and 2 show the frame diagrams for the two forms of truss submitted, and figs. 3 and 4 the corresponding stress diagrams. There is no difficulty in constructing the latter after the frame diagrams have been drawn out and the loads and reactions marked on. It would be more correct to assume the wind as acting on one side separately from the dead load all over, but the allowance of 56 lb. per ft. super. is sufficient to cover any discrepancy. The shafting attached to the tie rod will, of course, produce considerable difference in the stresses, not only by reason of the dead weight added, but by the bending moment set up in addition to the tension. The shaded triangles show the bending moments in each case, assuming the two shafts to be hung in the most disadvantageous position. The calculations for the scantlings are as follows, the stresses scaled from the reciprocal diagram fig. 3 being marked on fig. 1. The details are shown in fig. 5.

Principal rafter on left side (2—8).—Max. thrust = 122 cwt. = 6.1 tons. Length 10 ft. 9 in. = 129 in. Treating this as a strut fixed one end and hinged at other we may use the formula

$$p = \frac{W}{A} = \frac{fc}{1 + \frac{1}{15000}\left(\frac{L^2}{r}\right)}$$ where fc = 6·5 tons per sq. in. for steel.

Try 5 in. × 3 in. × ⅜ in. tee. Then area = 2.875 sq. in. r = .828 in.

$$\therefore W = \frac{6.5 \times 2.875}{1 + \frac{1}{15000}\left(\frac{129}{.826}\right)^2} = 7.15 \text{ tons safe load.}$$

We may therefore take this section for the principal rafter on the long side of roof.

Principal rafter on north side (4—10).—Thrust = 90 cwt. = 4.5 tons. Length = 150 in. Try 5 in. × 3 in. × ⅜ in. tee. Area = 2.875 sq. in. r = .828 in.

$$W = \frac{6{\cdot}5 \times 2.835}{1 + \frac{1}{15000}\left(\frac{150}{.828}\right)^2} = 5.875 \text{ tons safe lo}$$

We may therefore adopt this section, wh is the same as for the other principal raf

For strut 8—9.—Thrust = 46.5 cwt. 2.325 tons. Length = 75 in. Try 2½ × 2½ in. × 5-16 in. Area = 1.464, r .48.

$$W = \frac{6.5 \times 1.464}{1 + \frac{1}{15000}\left(\frac{75}{.48}\right)^2}$$

$$= \frac{65 \times 1.464}{2.624} = 3.62 \text{ tons safe load.}$$

Hence we may adopt this section.

Tie bars.—Bar 9—10.—Tension = 7 cwt. = 3.725 tons. Allowing 6.5 tons

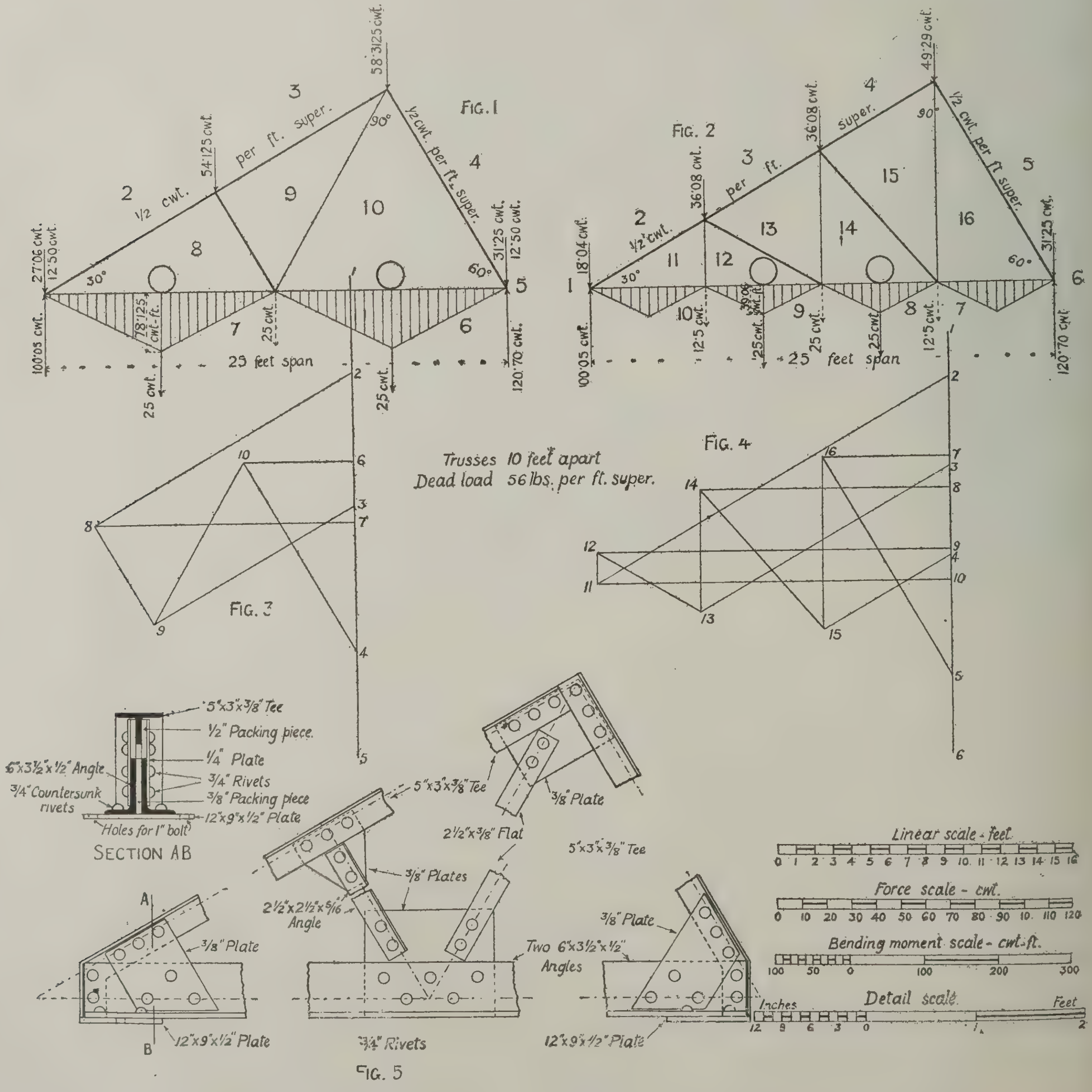
sq. in., net section required $= \frac{3{\cdot}75}{6.5}$

$= .573$ sq.

A 2½ in. × ¾ in. flat bar gives .656 in., allowing for one ¾-in. rivet hole, the fore we may use this section.

Bottom tie.—The bending mom (max.) = 46.875 ton in.

Direct tension = 105 cwt. = 5.25 tons



STRESS DIAGRAMS FOR NORTH-LIGHT TRUSSES.

et section required for direct tension

$\frac{.25}{.5} = .808$ sq. in.

r B.M. stresses the net section ulus required is

$$Z = \frac{46.875}{6.5} = 7.225.$$

y two 6 in. × $3\frac{1}{2}$ in. × $\frac{1}{2}$ in. angles, ving for a $\frac{3}{4}$-in. hole in the flange of . The net value of I about the nal N.A. is 29.602 in. units; the max. nce N.A. = 3.94 in.

$$\text{Nett value of } Z = \frac{29.602}{3.94} = 7.525.$$

rictly, this will have a greater value, ne N.A. has shifted owing to the cut-away of material for holes. The max.

$$\text{stress} = \frac{W}{A} + \frac{M}{Z}$$
$$= \frac{5.25}{2(4.502 - \frac{1}{2} \times \frac{3}{4})} + \frac{46.875}{7.525}$$
$$= .637 + 6.225$$
$$= 6.862 \text{ tons sq. in.}$$

e actual stress would be smaller than as we have not taken the real value of we may take the two angles as being

lowance has been made for bolting up shafting plummer blocks to the angle of the tie-beams, but no allowance has made for vibration or the pull of belt-eyond the figures quoted.

the roof covering is applied by close ns, or supports placed otherwise than the struts, the stress in the principal rs will be increased by reason of bending moments. Suppose the principal r to be divided by purlins into six l parts, then one purlin would be over struts and two others equally spaced een. This would require the section incipal rafters to be increased to 6 in. in. × $\frac{1}{2}$ in. tee or two 6 in. × 3 in. × angles.

e subject should be studied from such s as "Strains in Ironwork" (Spon, "Theory and Practice in Designing" stable, 6s. net), "The Mechanics of ling Construction" (Longmans, 6s.

HENRY ADAMS.

surement of Distance in Perspective.

RSPECTIVE writes: "I am in posses- of a photograph of the interior of the of a church, the width of which I to be 20 ft. Is it possible to find the h from this dimension only, not ving the station-point? The hori- l line and the vanishing point are, urse, easily obtained from the photo- n."

The problem set is rather a difficult nless a vanishing point can be found. If a square floor tile placed diagonally, or any similar detail, can be found in the picture, the vanishing point is easily discovered. Thus let ABCD be the floor of nave, AB the ground line, E the point of sight or centre of vision, x a floor tile; F will be the vanishing point, EF the horizon. Then from F draw a line through D to cut base line in G, and BG will be the length of nave to the same scale as AB. If any point H can be found so that BH equals AB, point F can be equally well fixed.

HENRY ADAMS.

NEWS ITEMS.

Building Licences.

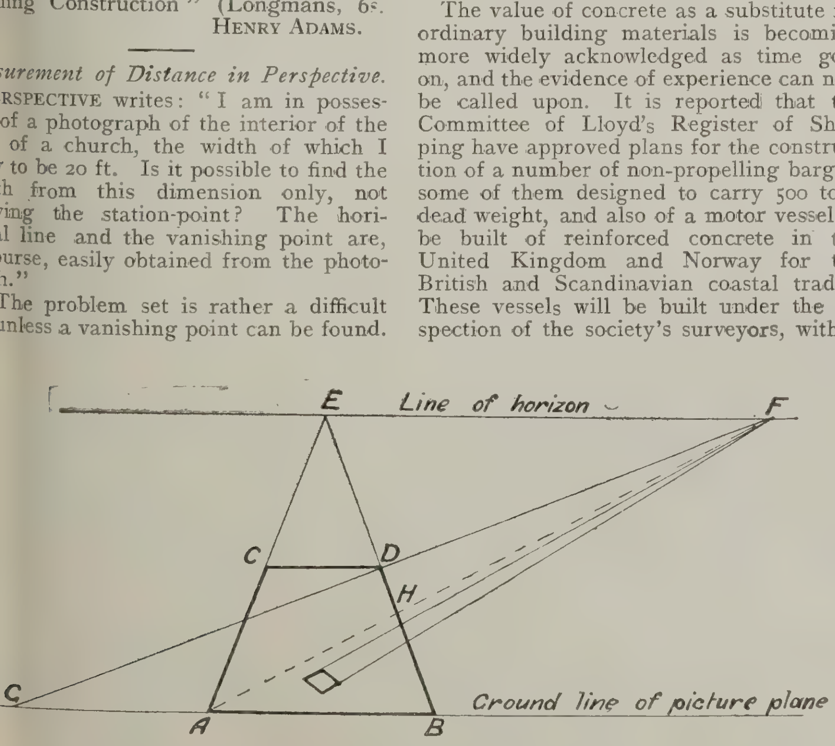
The organisation dealing with the issue of licences for the carrying on of building and construction work under Regulation 8 E of the Defence of the Realm Regulation of July 12, 1916, hitherto stationed at 6, Whitehall Gardens, S.W.1, has been transferred from the control of the Ministry of Munitions to that of the Ministry of National Service. All communications relating to the work of this organisation should henceforward be addressed to the Director, Building Licences Section, Ministry of National Service, 54, Victoria Street, S.W.1.

St. Paul's Bridge.

An extension of the time granted for the compulsory purchase of the land needed for the approaches to St. Paul's Bridge is being applied for by the Corporation of London. At least two previous extensions have been conceded owing to war conditions, and this further one seems to suggest that there is foundation for the persistent talk in municipal circles, of the City's intention to abandon the scheme altogether. The money, it is urged, might be spent to far better advantage in other directions. Of course, it is a question whether Parliament would sanction any proposal for deviating to street improvements any part of the revenue of the Bridge House Trust.

Reinforced Concrete Ships.

The value of concrete as a substitute for ordinary building materials is becoming more widely acknowledged as time goes on, and the evidence of experience can now be called upon. It is reported that the Committee of Lloyd's Register of Shipping have approved plans for the construction of a number of non-propelling barges, some of them designed to carry 500 tons dead weight, and also of a motor vessel to be built of reinforced concrete in the United Kingdom and Norway for the British and Scandinavian coastal trades. These vessels will be built under the inspection of the society's surveyors, with a view to clasification in Lloyd's Register. Reinforced concrete shipbuilding is forging ahead rapidly in the North. In addition to the new yard on the Wear, a similar establishment is projected on the Tyne.



MEASUREMENT OF DISTANCE IN PERSPECTIVE.

PRUDENTIAL ASSURANCE COMPANY.

In their sixty-ninth annual report, for the year ending December 31, 1917, the directors of the Prudential Assurance Company Limited show that in the Ordinary branch the number of policies issued during the year was 56,502, assuring the sum of £6,951,269, and producing a new annual premium income of £567,472. The premiums received were £5,495,205, an increase of £265,035 over the year 1916. The claims of the year amounted to £4,852,409, of which £398,385 was in respect of war claims. The number of policies, including annuities, in force at the end of the year was 934,075. In the Industrial branch, the premiums received during the year were £9,376,858, being an increase of £479,135. The claims of the year amounted to £4,352,031, of which £1,109,340 was in respect of 65,665 war claims. The total number of policies in force in this branch at the end of the year was 21,730,468. The total paid for war claims in both branches since the outbreak of the war exceeds £3,400,000 in respect of more than 160,000 claims.

In the General branch, the premiums received during the year were £6,721, and £3,744 was paid in sickness claims.

The assets of the company, in all branches, are £107,283,371, showing a net increase of £4,672,125 over 1916.

During the past two years an interim bonus of £1 per cent. per annum has been paid on all participating policies which became claims either by death or maturity, and the directors feel that the existing policyholders are equitably entitled to a bonus of equal amount on any distribution of profit. The Contingency Fund, which stands at £1,500,000, was set up for the purpose of safeguarding the rights of holders of participating policies. The directors now propose to transfer £1,000,000 from this fund which, together with the amount available from the profits of the year, will enable them to allocate a reversionary bonus in respect of the years 1915, 1916, and 1917 of £1 per cent. per annum on the original sums assured under all participating policies which were in force on December 31, 1917. The bonus so allotted will not for the present carry the option of surrender for cash, but facilities will be afforded enabling policyholders who desire to obtain National War Bonds by means of the company's special War Bond Policies, to apply such portion of the bonus as may be available towards payment of the necessary premiums. For this purpose the rate of discount adopted will be the British Offices' Table of Mortality with interest at $4\frac{1}{2}$ per cent.

The balance sheet includes over £27,250,000 in British Government Securities; this represents an increase over last year of about £9,500,000. The four Prudential Approved Societies have during the year paid to their members at their own homes benefits amounting to £1,303,380, making a total amount of £7,044,956 paid in this way since the commencement of their National Insurance work. A striking feature of the year has been the large number of women admitted to membership, the number being 232,787 as compared with 92,298 males.

THE JOURNAL "WANTED" ADVERTISEMENT COLUMN

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BUILDER'S Assistant desires London re-engagement; capable in accounting, bookkeeping, costs, and general office routine; with experience of Government contract work, etc.—John M. Fife, 19, Campden Street, W.8.

THE Association of Builders' Foremen and Clerks of Works, 56, Old Bailey, E.C.—Experienced Foremen and Clerks of Works can be obtained by applying to the Secretary, Mr. J. W. Sawyer, 214, Clapham Road, S.W. Competent foremen and clerks of works are invited to join this Association.

Appointments Vacant.

TREDEGAR URBAN DISTRICT COUNCIL.

HOUSING OF THE WORKING CLASSES ACTS.

The above Council propose to proceed with the preparation of a Scheme for the erection of about 500 houses after the War on Town Planning lines under the above Acts, and applications are invited for the post of Architect for the Scheme.

Applicants are required to state the terms upon which they will be prepared to undertake the work' setting out the preliminary works separately from the actual inviting of tenders and supervision of the erection of the houses, and to give general qualifications and actual experience in this class of work.

Applications to be sent to the undersigned on or before Tuesday next, the 2nd April.

(By Order) A. P. J. GOUGH.
Bedwellty House, Tredegar. Acting Clerk.
11th March, 1918. 126

BUILDER'S Assistant required to take charge of prime cost and usual routine; estimating not essential; permanent berth for smart, intelligent, and reliable worker.—H. V. Clogg, Vallance Works, 81, Vallance Road, E.1.

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Special personal system of preparations by correspondence or private tuition, Bond and Batley (A. G. Bond, B.A., Oxon, A.R.I.B.A.), 96, Grosvenor Road, S.W. Tel. 7036 Victoria.

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Tenders are invited for the Purchase of a Corrugated Iron Building, 40 by 21 by 16 ft., situated at Portland, Dorset. The structure is in good condition, matchboarded throughout, and has a partition separating a 10-ft. room. Erected by Harbrow and Co., London, 1905. Further particulars may be obtained from A. G. Seeley, 58, Easton Street, Portland, to whom sealed and endorsed tenders should be sent on or before March 27. The owners do not bind themselves to accept the highest or any tender. 120

Miscellaneous.

6d. per line.

ARCHITECTS' BENEVOLENT SOCIETY.

Founded 1850.

The Annual General Meeting of Subscribers and Donors will be held in the Rooms of the Royal Institute of British Architects on Thursday, the 21st March.

The President, Mr. Ernest Newton, A.R.A., will take the Chair at Five o'clock.

The attendance of Subscribers and Donors is particularly requested.

W. Hilton Nash, Hon. Treasurer.
Percivall Currey, Hon. Secretary.
9, Conduit Street, W.1. 122

Miscellaneous—*Continued.*

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Clarkson's, 338, High Holborn, London, W.C.
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WANTED, two 5-ton Cranes, two 3-ton, tw
Cranes, and two grabs each for same.—Box

CONCRETE Mixer, second-hand, wanted, for
with Oil Engine.—State make, capacity, an
and where to be viewed.—Tidnams, Ltd., C
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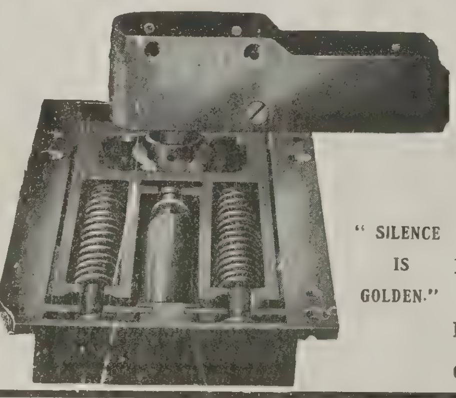
ROBERT ADAMS, 3 & 5, Emerald Street, London, W.



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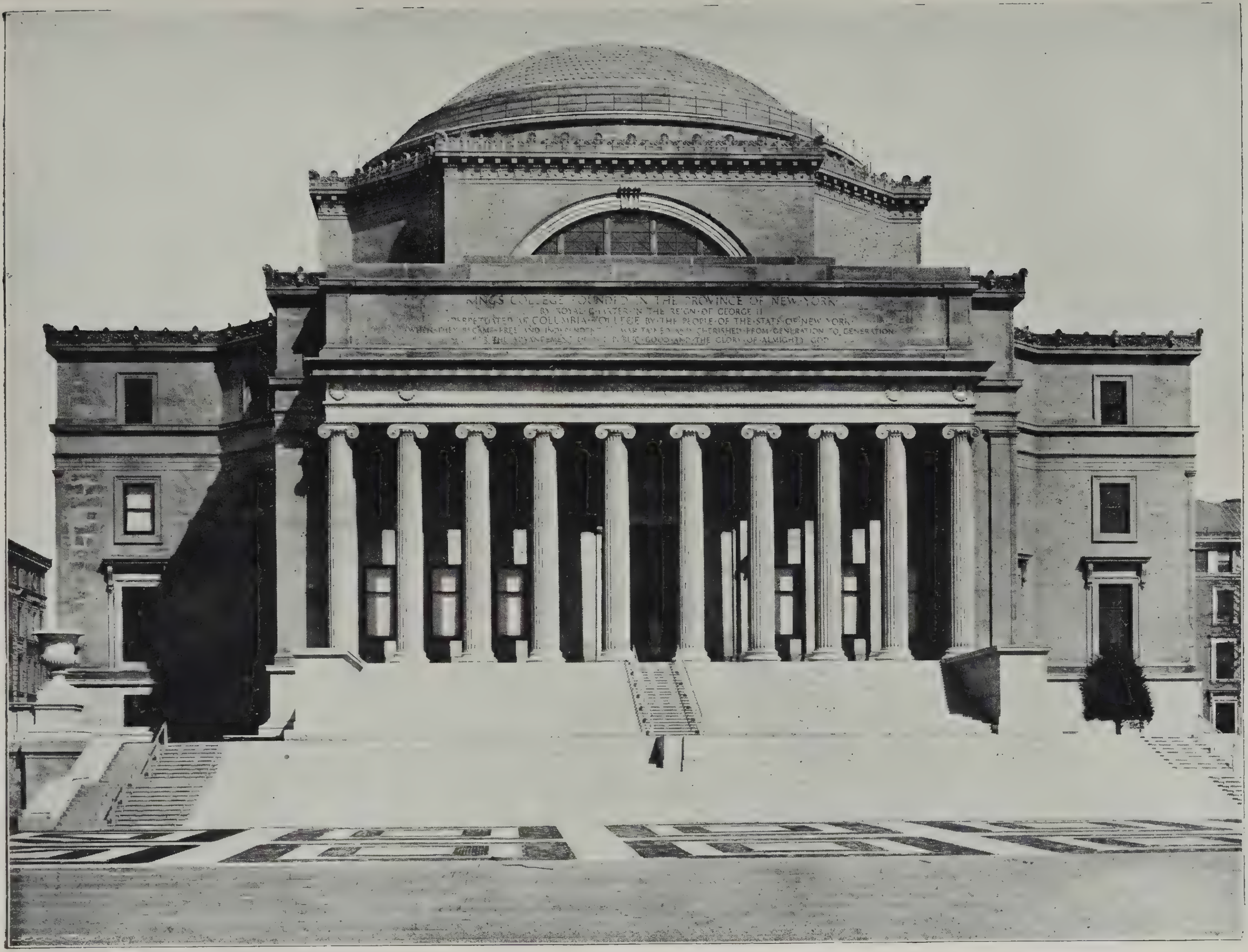
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(From “ Where the Great City Stands,” by C. R. Ashbee.)

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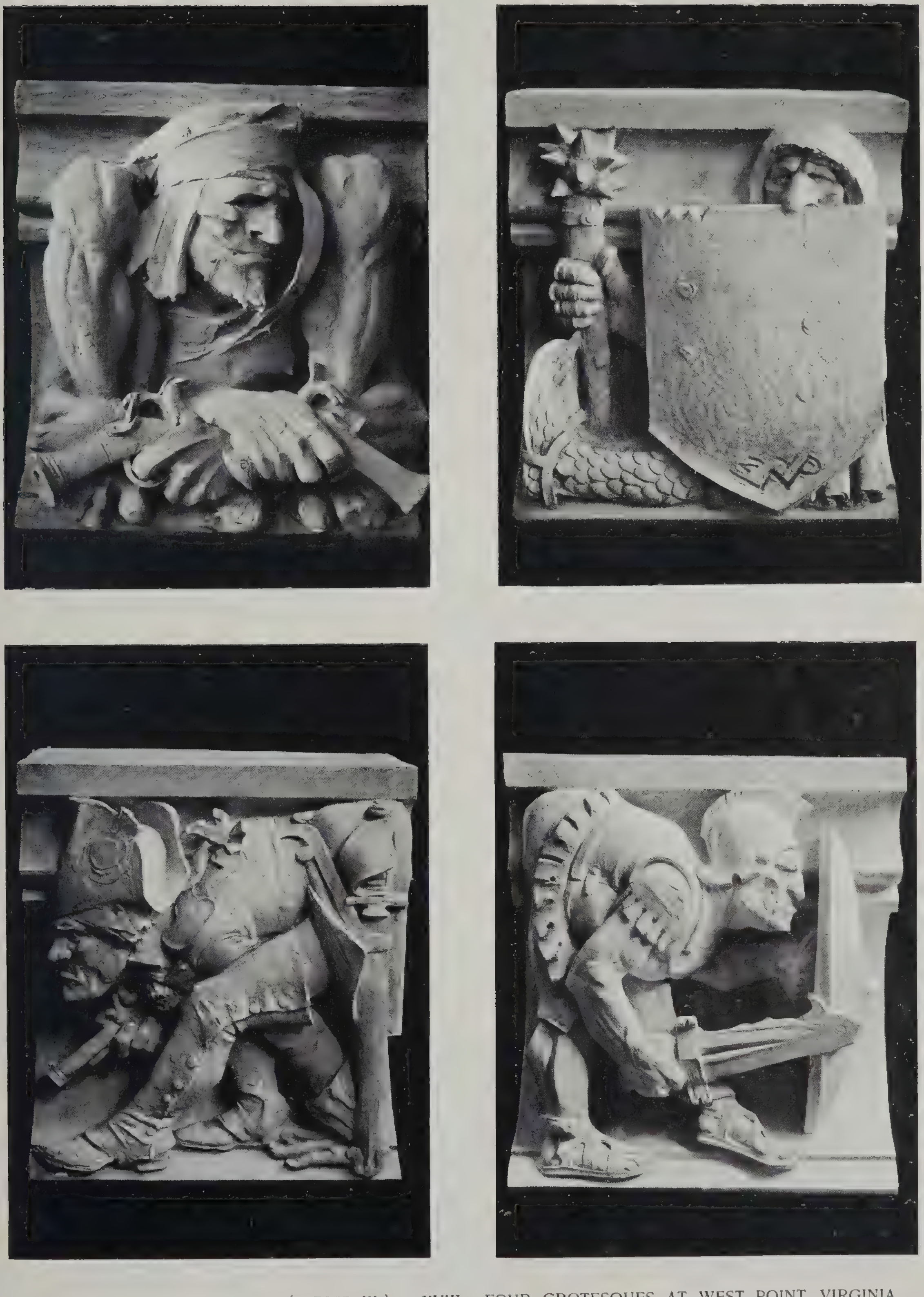
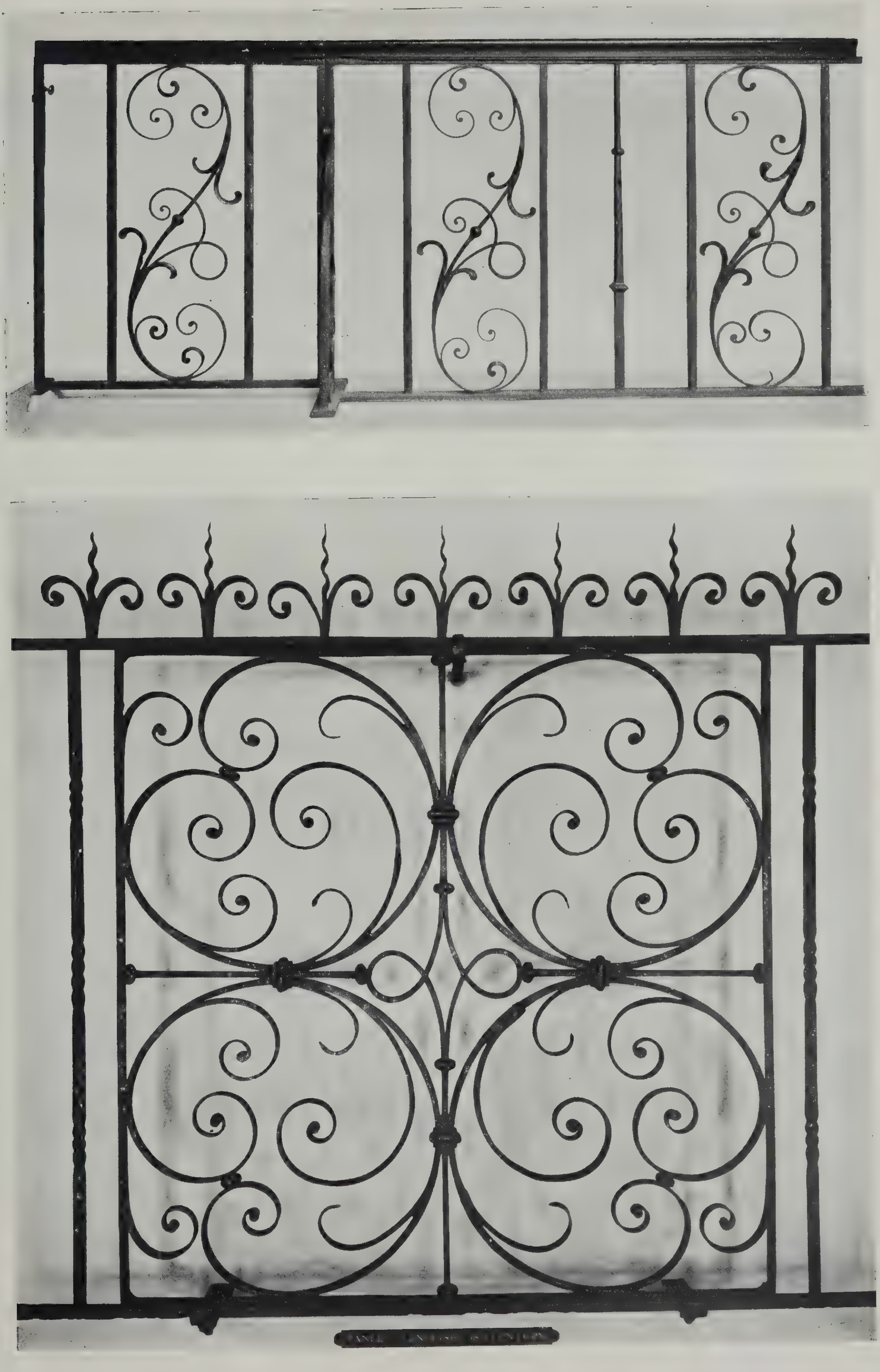


DETAILS OF CRAFTSMANSHIP (SERIES III.). XVIII.—FOUR GROTESQUES AT WEST POINT, VIRGINIA.

MODELLED BY LEE O. LAWRIE. CRAM, GOODHUE, AND FERGUSON, ARCHITECTS.

(From "Where the Great City Stands," by C. R. Ashbee.)



DETAILS OF CRAFTSMANSHIP (SERIES III.). XIX.—TWO EXAMPLES OF ENGLISH WROUGHT IRONWORK (EIGHTEENTH-CENTURY PERIOD.)

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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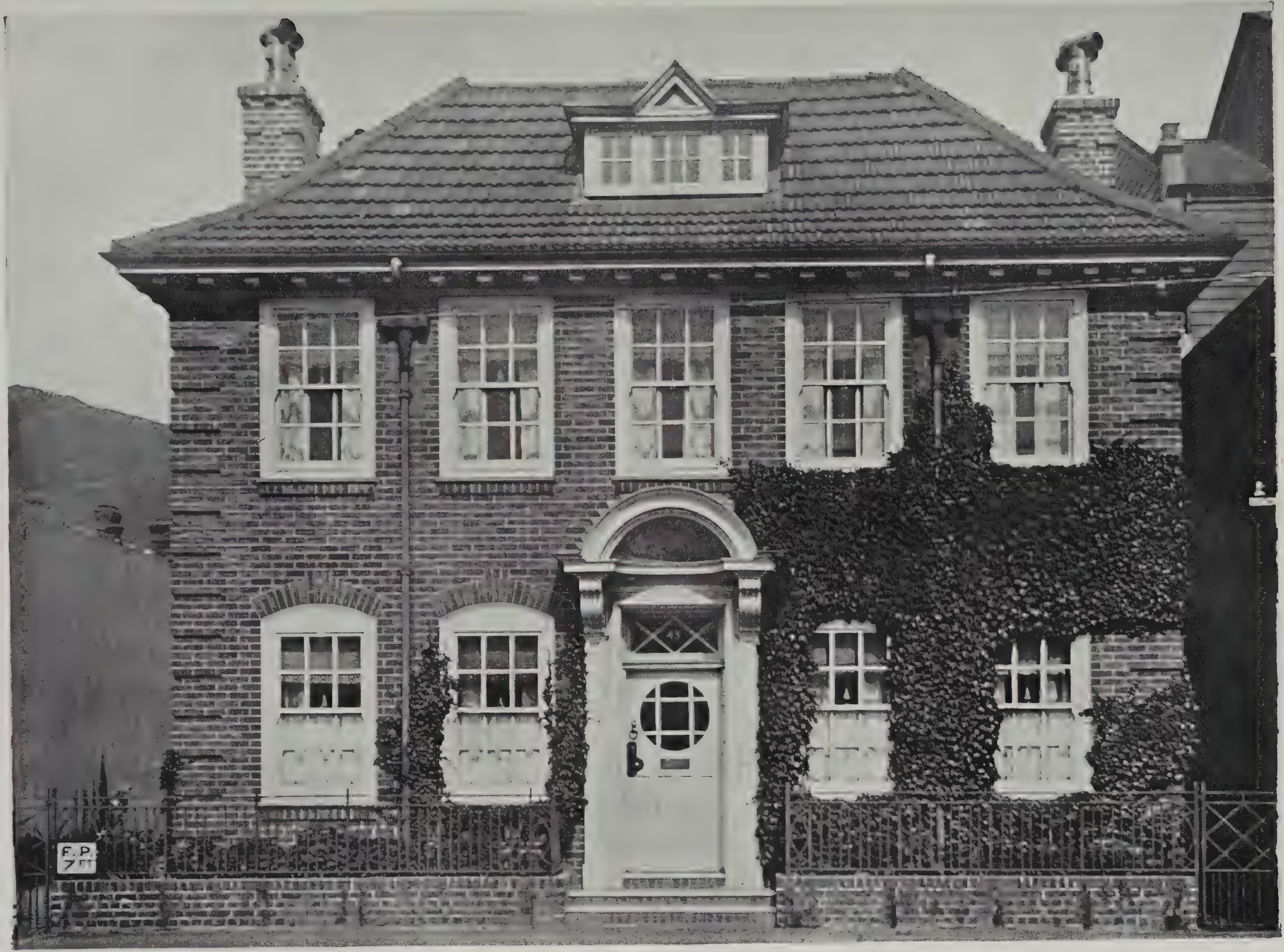

MODERN DOMESTIC ARCHITECTURE (SERIES III.). IX.—DOCTOR'S RESIDENCE, WELLINGTON, NEW ZEALAND.

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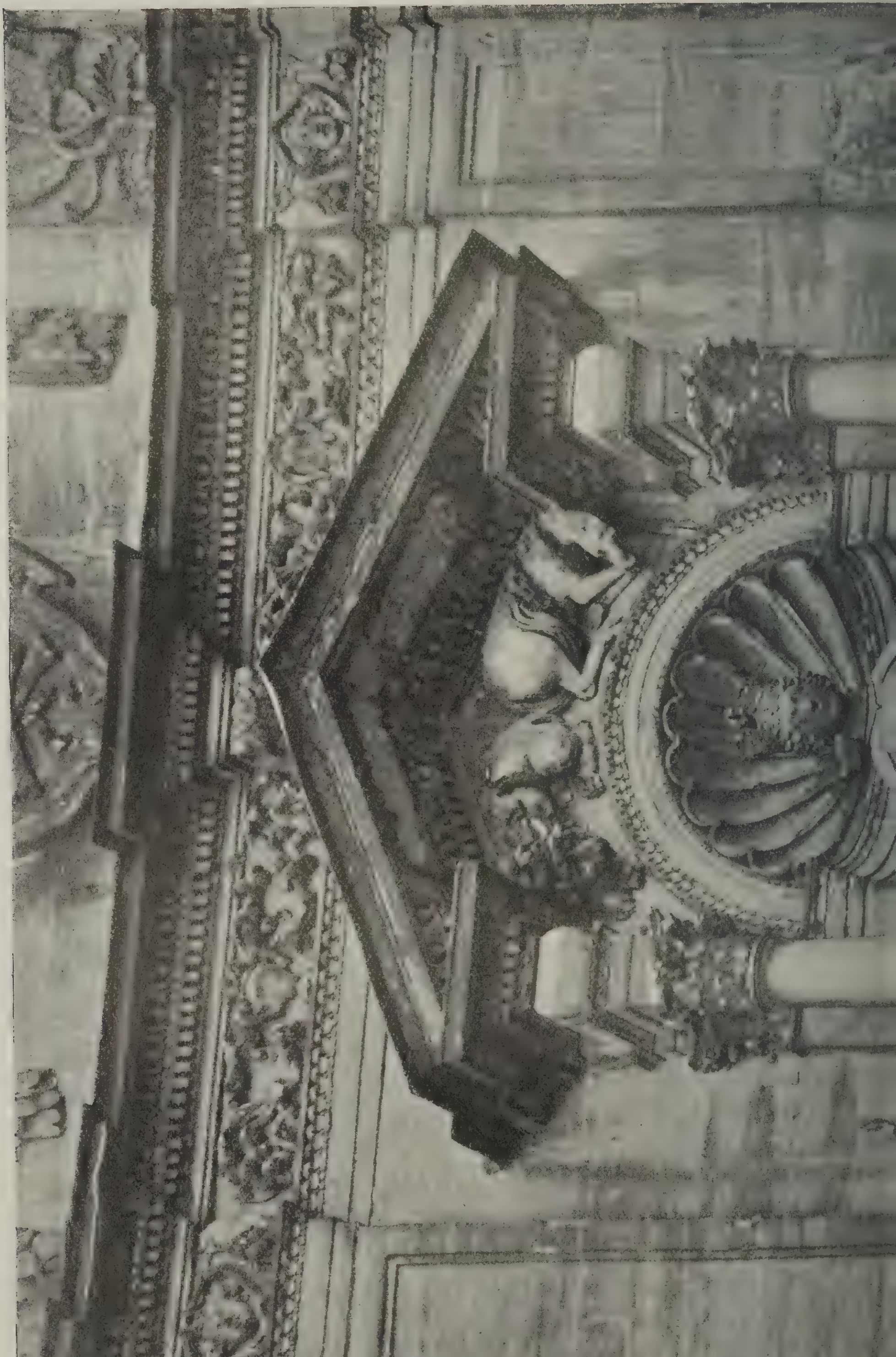

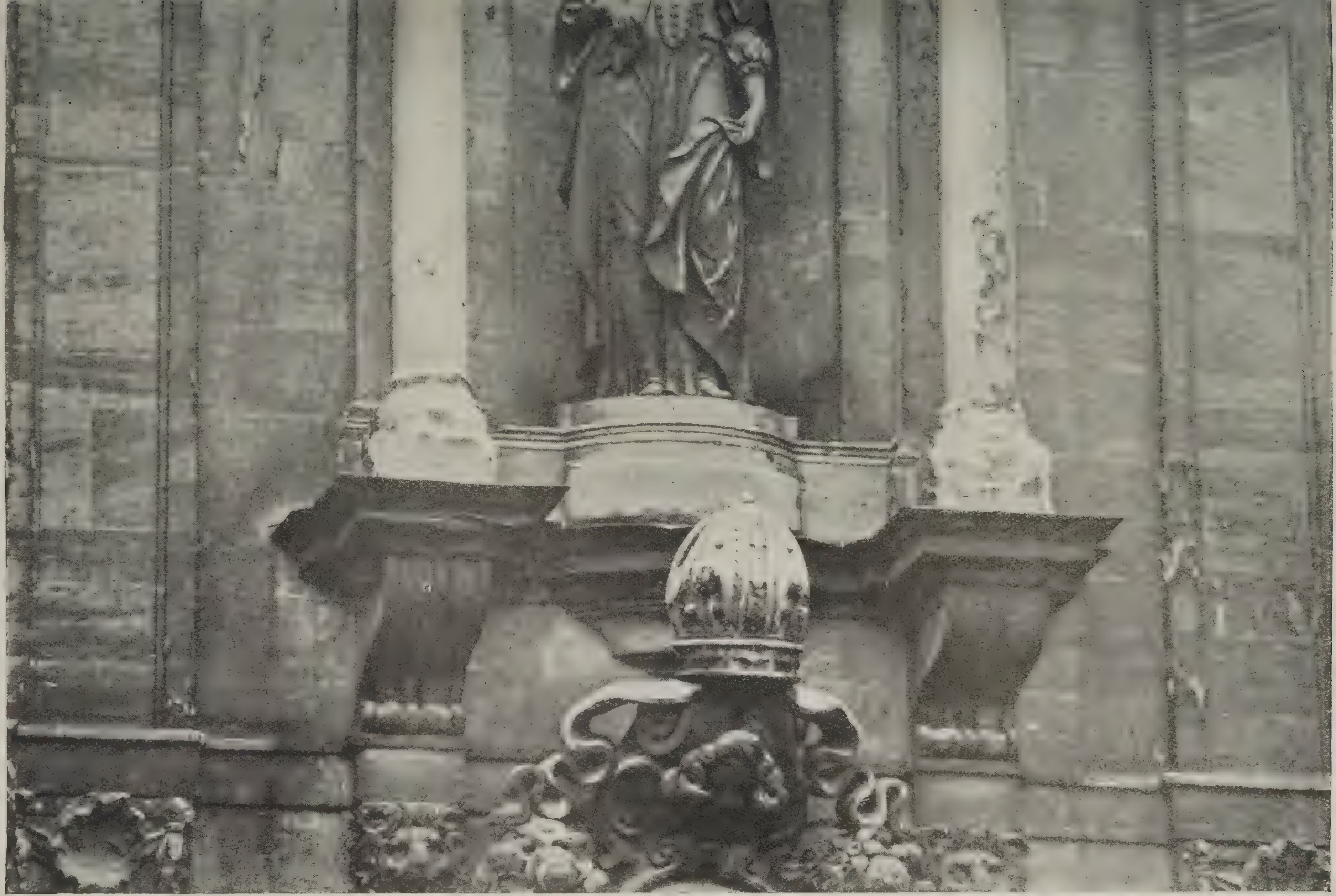

DETAILS OF CRAFTSMANSHIP (SERIES III.). XX.—BRONZE STATUE OF HENRIETTA MARIA (CONSORT OF CHARLES I.). ST. JOHN'S COLLEGE, OXFORD.

BY HUBERT LE SŒUR.

UNIVERSITY OF ILLINOIS

THE ARCHITECTS' AND BUILDERS' JOURNAL.

MARCH 27, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1212.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restricions on paper supplies, all elements of waste must e rigorously excluded. Our readers, we are sure, vill gladly assist in promoting this object, which is n item in national economy. They can co-operate vith us effectually in either of two ways—(1) By lacing a direct subscription for this Journal, or (2) y placing with a newsagent an order for its regular elivery. Casual purchases—now here, now there—reate a serious discrepancy between supply and emand, and cause wastage of effort and materials.

MR. ARTHUR J. PENTY'S letter in last week's issue raises many questions with which, for the moment, we do not feel called upon to deal. Amidst the welter of rather vague generalities, howver, there are two specific points to which passing ttention may be given without prejudice to a discusion in which we are not concerned to take part at this arly stage. First, there is Mr. Penty's proposal "to eek the democratisation of architecture through the nedium of Building Trade Guilds." He holds that instead of seeking the creation of a guild of archiects, which could only increase our isolation, we hould seek the removal of the class barrier which now eparates architects from the building trades, and istribute architects among the various guilds to o-operate with the building trade craftsmen." Nobody vill regard this as a daringly original or a dangerously ubversive proposal. Years ago, in dealing with onditions very different from those now before us, we epeatedly urged the desirability of freer intercourse etween architects and the other builders. In France, s we have often found occasion to recall, the archiect commonly takes a paternal interest in the workers, s often successful in adjusting disputes that occur etween employers and employed, and is alert and ctive to promote good feeling and social welfare all ound. In taking this attitude he gains rather than oses dignity and authority. Apart from this example, ve have always felt that there is a fundamental fallacy nvolved in the splendid isolation of the British archiect, and that, in the long run, he pays very dearly for ny small modicum of artificial dignity that he can istil from it, the fallacy being an implicit denial of he solidarity of building interests.

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In the aloofness of the architect there is an insinuaon that he represents interests to which the building ontractor is opposed, and that closer intercourse etween the twain would suggest collusion against the uilding-owner. It is Mr. Penty's affair rather than urs to dispel misgivings of this kind, since they would pply with much more force to his Building Trade uilds than to the less formal communion that we have n mind. All that we as yet care to say—for we prefer o observe strict neutrality for the present, in order hat what promises to be a most interesting discussion ay not be biased by a hair's breadth by any ord of ours—is that architects, having it in their ower to give the industry a grand spiritual uplift, udiously refrain from exercising that power. Unlike heir French confrères, they do not give the workers he benefit of their counsel, do not move freely among them, do not—with some few exceptions—offer them guidance in matters of education, training, apprenticeship; show them, in short, no sort of sympathy and good-fellowship. British architects in the lump are therefore open to the charge which Mr. Penty, drawing his bow at a venture, has unjustly levelled at Mr. Quennell of having "two little knowledge of the world of labour." Mr. Penty cannot have read Mr. Quennell's third article (February 13, page 69), in which the author presents his credentials. "He had special opportunities, as a boy, for meeting workmen of the building trade and farm-labourers. Before being articled to an architect" he spent a year at the bench and as a carpenter on the building. "Here one worked side by side with them; later on, for a good many years, there was work in connection with a woodworking shop as an employer. From 1896 seven years' social work was put in at a boys' club in one of the poorest parts of South London." From this experience he derived "a tremendous belief in the dignity and decency of labour." Mr. Penty's fiery darts do not pierce Mr. Quennell's triplex shield; but there are others.

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Mr. Penty twangs his bow also at Neo-Grec, which, but for the dialectical adroitness with which he drags it in, one would not have suspected of having much to do with industrial problems. But, whether or not it is relevant to the issue, in introducing it Mr. Penty opens a new branch of the business, and we rather wish that he had not, the problem being sufficiently complicated without it. The fact that Neo-Grec "bores him stiff" is no justification of his attempt to communicate this rigor-mortis bacillus to his inoffensive readers. It is truly a many-sided problem, that of preparing for the horrors of peace; but is not that a reason for keeping the discussion of it within manageable limits? By all means let Neo-Grec and the Vernacular fight it out to the bitter end, but first let us settle he preliminaries of this Homeric encounter. Mr. Quennell will welcome thorough discussion of his articles; but we think that it should be confined to the points raised in them. To dump on to the site a lot of miscellaneous and unspecified materials while the foundations are being dug would be untoward.

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Mr. Edward Stott, A.R.A., who died last Wednesday at his home in his beloved Amberley, was a landscape artist of incomparable charm. Although (perhaps one should rather say because) he was a Lancashire man—he was born at Rochdale—he was entranced with the serene beauty of the southern counties, whose very soul he shows us with feeling and fidelity—a fidelity, however, far from being merely photographic: it imparts to every peaceful scene a Virgilian sweetness that we could hardly savour for ourselves on the hills of Sussex. He interpreted landscape poetically, and his French training saved him, probably, from doing it mawkishly—or, let us say, with too insular an eye. For he was for a time under Carolus Duran, and had also the advantage of studying under Cabanel at the Beaux-Arts. One can see quite plainly in his pictures the French influence, which, however, does not abate one jot of the thoroughly English character of the work. He did for Sussex with the brush what Richard Jefferies did for it with the pen—interpreted it with a fine sympathy for its essential values. Amberley, in due season, is a perfect paradise; in winter it is otherwise; and there is a local legend that if in summer-time you ask an Amberley man where he lives the reply is, "Amberley—where else would you live?" In winter the reply is, "Amberley—God knows," with, as a saving-clause, "where the good potatoes grows." Future Academy Exhibitions will be infinitely the poorer for Stott's absence.

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New Associates of the Royal Scottish Academy announced last week are—David Gould (Glasgow), A. G. Sinclair (Edinburgh), and S. J. Peploe (Edinburgh), painters; A. Carrick (Musselburgh), sculptor; and J. B. Dunn (Edinburgh), architect. Mr. James Bow Dunn, A.R.S.A., F.R.I.B.A., was born in 1861, and educated at George Heriot's Academy, Edinburgh, and by student-travelling in Italy, France, Holland, and Belgium. Having served his articles with James Campbell Walker, he began practice in 1895, in Edinburgh, where he has built the Library for the Society of Solicitors, the Wesleyan Methodist Halls the Dean Established Church and the Charteris Memorial Church, Beechholme and Lodges, the Victoria buildings, and the stupendous "Scotsman" newspaper offices, which cost £360,000, and are perhaps the finest newspaper buildings in the world. Mr. Dunn has also designed much domestic work in various parts of Scotland, and some in the North of England—as Haggerston Castle, Northumberland; and Gargrave House, Yorkshire. He was elected a Fellow of the Institute in 1905, and in 1910-11 was president of the Edinburgh Architectural Association. He is to be congratulated on his latest well-merited honour, which could not have been better bestowed.

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In the House of Commons last Wednesday, Sir Albert Stanley, President of the Board of Trade, announced that within the next few days there would be issued an order which would have the effect of restricting the consumption of gas and electricity. These restrictions apply specifically to lighting and cooking. No lights are to be used for illuminating shop windows, all lights in places of amusement must be extinguished after half-past ten at night, and cooking at hotels and boarding-houses must cease an hour earlier than that. Further, in respect of the country south of a line drawn from the Wash to the Bristol Channel, it was proposed that all users of gas and electricity should be restricted to five-sixths of the amount consumed for the corresponding quarter of last year; this restriction being subject to a minimum allowance below which consumption need not be reduced, and subject also to certain modifications with respect to munition-works, hospitals, and nursing-homes. It would be necessary also, Sir Albert said, to restrict all large power stations supplying tramway and electric railway undertakings, including the Underground. Moreover, the restrictions on the supply of house-coal in London would be extended to the greater part of England, and the supply to London would be considerably reduced next winter. There is no cynicism in saying that as there are fewer goods to buy and as there is less food to cook, light and heat should be correspondingly reduced; and, fortunately, consumption in either case can be controlled to a nicety, except where the crude and wasteful method of cooking by means of a coal fire is in practice. With respect to shop-window lighting, the present restrictions, and the new order, should teach shopkeepers a much-needed lesson in economy. Before the war, they outvied each other in extravagance of lighting. Glare which they set up as an attraction was merely repulsive, and they have been slow to adopt the economical and effective devices which the science of the illuminating engineer has placed at their disposal. They no have an opportunity of renouncing their glittering sin As to the coal fire, if it had been generally supersede when superior substitutes were provided, we should n be wasting heat up the chimney at a moment whe every unit of it is wanted for effective service. Th new restrictions will at first impose many hardship but ultimately they will effect many reforms—amon them, we trust, a saner appreciation of relative value all round, and a more just sense of scale and proportion universally applied, as well as greater firmness moral fibre. As Landor makes Lucullus say, "ther are some fruits, and some virtues, that require a hars soil and bleak exposure for their perfection."

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It will be noted with almost as much surprise a satisfaction how keen an interest is being taken in th fate of St. Olave's, Southwark. When first we hear of the intention to demolish it, we expressed the belie it will be remembered, that protests would be few an futile. We are glad to find that we were mistake Many letters in praise of the church, and demandin its preservation, have appeared in the Press, and th London County Council has taken the unusual bu praiseworthy course of printing on its agenda description of the church and recommending oppos tion to the proposal to destroy it. Its continuance o the present site, however, seems improbable. It stand derelict, forlorn, and functionless, and the ground occupies is too valuable to be cumbered by a mer monument. As a compromise on the original intention to destroy it utterly, a proposal has now bee made to dismantle it with care, number its units, an rebuild them on some less covetable spot, where b renewing its activities it would offer a stronger justif cation of its existence than it does where it now stand Purists will complain that a building deprived of it original environment loses much of its architectura interest; but St. Olave's was long ago bereft of th setting for which Henry Flitcroft designed this gem and wherever it may go, it cannot be more anomalou than it is amidst the very modern provision warehouse which are crowding it out. Those warehouses, by th way, are, in most instances, of quite excellent desig Better elevations of this class are not to be seen London. One block, in particular, is exemplary tha business and beauty are by no means incompatible.

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It appears that the fate of the church depends o liberty to build on the site. An Act of 1884 provides that disused burial-grounds must not be bui upon, but shall be reserved as open spaces. It wa therefore necessary to obtain a special Act to authoris the sale of the site of St. Olave's for building, and th Bill promoted with this object has been so amende by the House of Lords as to prohibit building Viscount Bryce's motion instructing the Committe to provide that the disused burial-ground shall be preserved as an open space, "so as to secure a permanen view of London Bridge," having been carried by thirty two votes to twenty-six. Hence the position is shee deadlock; for an open space is exactly what is n wanted in Tooley Street, and the sole object of removing the church is to turn a valuable site to commerci account, and apply the proceeds (fifty thousan pounds) to the re-erection of the church where it wanted. It is probable, therefore, that the Diocesa will not proceed with a Bill that has been wounded its vital part. It remains to be seen whether som ingenious evasion of the difficulty can be devised, whether the church will be left to linger on in slumbering idleness, and possibly to moulder to decay—a fat that would be even more pathetic than swift destruction.

HERE AND THERE.

ACTORS, I am told, revere the memory of the late Sir George Alexander mainly because he was "the man who turned the luck of the St. ames's." Superstition is the badge of all their tribe. ertainly, when, in 1890, Alexander began manage- ent at the St. James's, the theatre had wrecked many opes of fame and fortune, but to George Alexander gave both. For eight-and-twenty years every alance-sheet showed a profit—an achievement that, onsidering the speculative character of the business, ay be regarded as an instance excusing, if it does not stify, the actor's rooted belief in "luck." What luck" is I do not know very exactly, and I ust confess to having very little belief in it. I put ore faith in hard work intelligently applied—an stute perception, or an intuition, of what should be one, coupled with the ability to do it. True, "there a tide in the affairs of men," and Alexander took it the flood. He must have realised, I think, that ere was a public to which trashy plays, appropriately oused in vulgarly designed and gaudily decorated eatres, did not appeal. In his youth there had sprung a hideous tradition in theatre design. Inside and it, the average theatre, in London or in the provinces, as a miracle of bad taste. A flauntingly immodest ococo elevation that seemed to mock morality had r its counterpart an interior crimson with every crime at a ruthless upholsterer could be incited to perpe- ate in the alluring name of luxury. Bulgy balconies d multitudinous gilded mirrors did the rest. It was t the playwright who held the mirror up to Nature; is delicate attention was delegated to the furnisher, ho did it to excess. A programme heavily scented d having its edges embossed with mock-lace like a id-Victorian valentine completed the demoralisation.

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In all these things we imitated the French, and did very badly. French art at its worst is never clumsy nd vulgar; and whether taken at its worst or at its est it is always inimitable. The multiple-mirror and lush-plethora period coincided with an unparalleled earth of English playwrights. Our plays, like our layhouses, were clumsy adaptations from the French. rom these horrors the better type of playgoer ecoiled, and George Alexander dexterously caught im on the rebound. In every respect the St. James's heatre was antithetical to the conditions I have faintly utlined. It did not stare at you impudently on the road highway. Its two orders—Corinthian and onic, lady and gentleman, as all "orders" for the eatre should be—and its pedimented windows made a modest and altogether "genteel" front, and King treet, which it adorns, is, comparatively speaking, a ecluded by-way. Inside, there is nothing fussy, lsome, or in any way offensive. It would satisfy the xacting critic who holds that the best kind of decora- on, or of personal dress, is that of which the details scape you, while, as a whole, it impresses you vaguely ut favourably.

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West-enders found this a refreshing change from e blatancies of the more modern theatres; and I ink that Alexander owed his steady prosperity lmost entirely to his unfailing good taste; for his, it as been said, was the best managed theatre in ondon. Furniture-dealers went to the St. James's to udy the drawing-rooms set out upon the stage, ecause they represented the last word, not in mptuousness, nor in any sort of particularity, but in ticent good taste. The theatre was built by Beazley, in 1835, at a cost of £26,000, for John Braham, the famous tenor. Braham, it will be remembered, was a thin disguise for Abrahams. His father had a nickname. When the great tenor was at the height of his fame, this fact was disconcertingly recalled to him. Braham, in one of his scenes, had to exclaim dramatically, "Who, tell me, who is my father?" A little Jew in the pit took up the cue with, "I knowed yer father well. His name was Aby Punch." And it was so.

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Braham's beautiful voice having gained him a fortune, he, at the age of sixty, lost it all in building and running the St. James's Theatre. One would like to know what it looked like inside when, in 1836, he reopened it, after a recess, with the modest announcement that "The theatre, having been perfected in all parts, was now admitted to be the most splendid in Europe." He retrieved in America all that he had lost at St. James's, and his daughter became the Countess Waldegrave. In 1839 the theatre was reopened by Mr. Hooper, "with three new pieces, and a dozen lions and tigers of extraordinary size." Afterwards he "attracted the rank and fashion of the metropolis" with a troupe of highly trained monkeys and goats.

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After the monkeys and goats, the German opera-singers. Herr Schumann, director of the opera at Mayence, brought them over in 1840, and they arrived in characteristic style. "The procession of carriages and baggage wagons," says Mr. Edward Walford, quoting the contemporary "Era," "containing the stage wardrobes, decorations, and other articles, resembled a troop of soldiers rather than a troupe of actors; it was, indeed, more like a military than a Thespian corps." In honour of the Prince Consort, the name of the theatre was temporarily changed to the Prince's. Our musical critics had not as yet been educated up to that high degree of taste that eventually pronounced everything good if only it was German (some persons have gone to the extreme limit of pretending to admire Boehm's Griffin on the site of Wren's Temple Bar!), and they had the insolence to slate the German singers: "Herr Poeck sang with great spirit and power, Schmerzer was good in some parts of the opera; but the ladies, whom out of gallantry we ought to praise, can only claim it on that head. If they had but moderate execution, and could but sing moderately in tune, we would willingly excuse their badness of school, for we should at least hear the composer without being offended; but really (and the ladies must pardon us for saying so) such singers as Madame Fischer Schwartzböck and Madame Michalesi are sufficient to destroy the effect of any opera, however fine it may be."

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As a matter of personal preference, I like a theatre to have a classical front, which gives the right savour of the fathers of the drama. Not that I am oblivious of the open-air amphitheatres of Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, or that "awnings were a late invention of Roman luxury." That theatres should suggest the Greek spirit, it is now generally conceded had become fairly evident before the war; several new theatres showing the right purity and restraint; so that the classicism of sedate St. James's, regarded for a generation as being hopelessly out of date, had come into fashion again.

DIOGENES.

PREPARING FOR PEACE. VI.—SELF-GOVERNMENT.

BY C. H. B. QUENNELL, F.R.I.B.A.

THE most hopeful sign for the future is the form of self-government in industry outlined by the Whitley Report, the most promising feature of which is the suggestion that masters and men are to come together. In so doing they may be able to find a way out of their troubles. The greatest problem at the moment being the urgent necessity of increasing production, it is fair to assume that this will be put to the men as one of the points on which their active assistance is needed. It will follow naturally that the men will demand a more responsible part in the control of production and a greater share in its reward. Profit-sharing, co-operation, and a voice in the control are an approach to the Guild system of the Middle Ages. We may lose the "extra penny an hour" attitude when the men become part owners in industry, and expect greater interest to be taken in education, apprenticeship, and quality of work.

There will be failures and heart-burnings, because the question bristles with difficulties, and there will be greater differences between the various grades of trades unionists than between the masters and men collectively. The wild men are fond of talking of Labour as a solid body, whereas in reality the skilled mechanic and labourer, both being unionists, have been known to wrangle, and, like oil and water, join only in layers.

But the opportunity is given to them to win their way on by means of Industrial Councils, and these latter do represent a step forward.

Let us imagine that such a body has been formed for the whole building trade, and that a Parliament has been called together, in which every branch can find its voice. When this is done, what may be expected to happen? Such common meeting ground would be an excellent place for gaining information on all such subjects as new materials and methods of construction. Labour, by its numerical strength, would find itself very much in control, and, faced by an entirely new set of problems, may be expected to gain in responsibility. The architects would be very small beer, but, then, they are getting used to that. Manufacturers would be called in so that they might inform themselves as to the qualities required in their goods, and help us to become practical.

We should need some fine central building—a Builders' Hall, or the Hall of the Building Trades. Here all the trades unions, the employers' federations, and associated industries would have their offices. The R.I.B.A. could lie down with the society, but agree to differ continually, and always be in opposition in the Building Parliament. The sale of all present properties would tend to economy, and result in one fine central place. The pooled libraries would make one magnificent collection of books, available to builder, bricklayer, architect, or labourer. We must have the latter in, and cannot allow any snobbishness as between hewers of stone and drawers of water. The building would have fine halls for meetings, common to all members, and the social side would not be neglected. This latter would be an essential part of the scheme, for though the various societies would have their own offices, all meetings must of necessity be in common.

The Council would control all technical education relevant to the building trade, and maintain laboratories for testing materials.

Such a Guild would be worth joining; what a punch we should have; what a fight we could put up! It would be following strictly on the lines suggested in the Whitley Report, in that we should govern our ow trade, and any members of it who stood in need discipline, masters or men, could not stand out again the force of public opinion which such a body woul represent. Most of the mean things in this world a done in holes and corners, to which the sun cann reach.

Now as to the work which the Council of the Buil ing Trade would be called upon to do. The first que tion would naturally be, how can we best meet th necessity for increasing production? By providin all the buildings, offices, and factories that will required. Careful enquiries would be made an evidence collected as to wasteful processes, and circum stances tending to increase cost and lead to delay. a trade we should be united, and the difficulti encountered would be outside.

A Minister of Reconstruction is already up again the first of these, viz., acquiring land. The Report this subject of the Committee appointed by D Addison was published in your issue of the 20th ins Again, in the article in this series which appeared March 13 some general conclusion was given and not as to the findings of the Royal Commission on the Lan Transfer Acts, held in 1909-11.

At the risk of being found tedious, a general refe ence is again made to the importance of this subje to all members of the building trade, and how th defects of the existing system of transfer stan between us and progress; limit the numbers of peop holding land; prevent free trade in it, and check pr duction all round.

Here the Council of the Building Trade could be the greatest service to the community and of assistanc to the State, in that its members would have, in a probability, the largest amount of practical knowledg of the working of land transfer and the objects to aimed at in its improvement.

Our standing Parliamentary Committee wou always be available, for that plentiful cudgelling whic it is so necessary to bestow on the faithful electe before they will move in any desired direction. H should see that the House of Commons included som members who knew something of the trade.

It might be found advisable to institute a Court Judicature, to be administered by the Council, for t trial of purely technical actions. Take a concret example. Party wall cases are almost invariabl settled by the surveyors of the building and adjoinin owners. Yet they frequently are extremely compl cated. But we have got into the way of doing it, an the awards are, as a rule, a fair solution, arrived expeditiously and at no great cost. With light an air, for no very good reason, the reverse is the case; w call in the lawyers, costs are heavy, and vexatiou delays inevitable.

An actual example is better than any amount theory, and to this end permission has been obtaine from a building owner to publish costs of a recent ligh and-air action. The work consisted of pulling dow an old eighteenth-century public-house and putting u a block of residential flats, at a cost of £9,658. It wa intended to go up 59 ft. to the top of the blockin course, but the opposite neighbour objected to this, an an action was entered against the building owner. Fron start to finish this lasted many months, and resulte in a decision that the building must modify his origina intention to the slight degree shown in a diagram give in the Journal for August 2, 1916, on reference which it will be seen that the eyebrows only were cu ff the building, because the ridge remained in the me place. The building owner paid the agreed costs f the other side, but was not cast in any other

amages. These amounted to	£600	0	0
he building owner's costs were............	928	3	2
	£1,528	3	2

–So that it cost over 15 per cent. on the contract price decide the case.

ine expert witnesses received	£281	10	7
hree learned counsel received	336	4	0
he lawyer received	220	0	0
odels, photographs, etc.	90	8	7
	£928	3	2

All of which would be of considerable interest if the ain concern of the building trade was to support the gal profession. From the point of view of regarding ur work as a public service, such a case as this is isastrous. Any three surveyors could have settled it half a day without the assistance of the nine expert itnesses, the three learned counsel, and all the rest f them. Light and air would form an excellent sub-ct for the Building Trade Council to start upon. As ne law is at present, it hampers enterprise in that it troduces the element of uncertainty into what one an do on a site. Automatically it lowers site values. is a disturbing influence in architectural design, ecause one man is allowed to run his building up and nother has to cut down. It is inequitable against the idividual, because in the case of the Crown the only erson who can acquire a right of light is another rown tenant holding under an old lease; under new ases such acquisition is barred. What is sauce for oose should be sauce for the ratepayer. There is no oubt about the matter at all that the law of light and r as at present constituted is all to the benefit of the wyers and expert witnesses, and clean against the eneral interest. It must be remedied, and one sug-estion is that we be allowed to go up to Building Act eights; very little, if any, damage would be done to nybody, and much benefit would result. But this an be left to the Building Council.

Of course, it may all end in talk, and the Builders' arliament may become a mere talking shop. It will ave to overcome the troubles of any democratic insti-ition, and will be on trial, and that is the position the ation finds itself in now. The war means the trial of emocracy; the enemy stands for Feudalism and rivilege. If we can win the war we shall gain all lse; to lose means fitting neck to collar.

CORRESPONDENCE.

Mr. Quennell and Land Tenure.

o the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Mr. Quennell's article in your issue of arch 13 is so well informed, thoughtful, and sug-estive that it leads one to expect him to suggest a olution of the land problem much more radical (in the rue sense of going to the root) than merely the secur-ng of free trade in land.

The quotation from the Rev. George Adam Smith's ook on Isaiah shows, and, in my opinion, shows truly, hat the private ownership of land gives the owners a rodigious power over the well-being and happiness of heir fellow men. No institution entailing such power n the one hand and such subjection on the other hould be allowed to continue by a people who desire he reign of liberty, justice, and equity to be stablished in their country; and such is, I believe, the esire of every Briton.

Mr. Quennell indicates that the land enclosures of the Napoleonic Wars were thinly disguised robbery; but to allow the robbery which began with these enclosures to continue is as sinful as to permit an enclosure now.

Land enclosures were not robberies such as the theft of a horse, a house, or other article of wealth, which ceased with the misdeed and robbed of wealth only the ones who produced it or possessed it at the time. They are continuous robberies, because what the thief of common lands stole was the power for himself, his heirs, and assignees to take rent yearly from the dispossessed people; that is to appropriate year after year by the instrument of land-ownership part of the wealth produced by the labour of others. No lapse of time and no frequency of change of ownership can ever change such wrong into a right.

Indeed, the wrong grows greater the longer it continues, for as we progress in invention and productive power land value increases, and capital and labour must give up to the landowner an increasing amount of the wealth they produce for his permission to use the natural resources of the earth.

Mr. Quennell shows that in law the land belongs to the Crown in behoof of the whole people; that the granting of the privileges of landholding was accompanied by the exacting of corresponding duties of maintenance and defence of the Crown or State. To-day the privileges are retained but the duties are not exacted.

The solution is obviously to reimpose these duties by exacting a tax, or payment into the common exchequer, to provide the services necessary to maintain and defend the State, such payment to be based upon the value of the advantages which possession of each part of land confers upon its owner or holder.

Let us have free trade in land by all means, but free trade is not sufficient, for it will not cheapen land. The amount that one is willing to give for land includes the price which the seller will get plus the cost of transfer, etc. To cheapen the cost of transfer will lessen the amount that will be paid to the lawyer or agent and increase the amount that will be paid to the owner for the land itself.

Mr. Quennell states that taxation of land, by adding to cost, adds to the price of the commodity. Now, this is true of a tax upon commodities produced by labour, as the tax is a factor in the cost of production, and is added to the price. But a tax upon land value cannot be a factor in the cost of production, as land is not produced by labour, nor is its value produced by the operations of the owner's capital or labour—the values created by these operations are improvement values, not land values. Land value is entirely due to the inherent resources or position of the land and to the activities of the whole community. At present the price of land is not its economic value, but includes a speculative value due to the expectation of future increase in value. Now, a tax levied upon the economic value of all land—not a tax levied according to the use to which the land is put—could not be passed on by the landholder to the user; but, on the contrary, such a tax would cheapen all land by bringing more land on offer in the market. For it would prove unprofitable for holders of land to pay a tax on the true market value of their land while the land were kept out of use or at an inferior use, and the result would be that all land would be put to its best use by the holders, or they would offer it in the market at such a price as would induce capital and labour to take it and put it to its highest use.

Economic force in the form of taxation is the only means in our power to break down monopoly prices and to make certain that all the natural resources of the country, on the surface or under the surface of the land, are fully developed and a rapid production o wealth attained. If the taxation of land values can be accompanied by the abolition of taxes upon improvements (houses and all other things which man produces to minister to his needs) an additional great impetus will be given to production.

March 14, 1918. LICENTIATE R.I.B.A.

Coade's Terra-cotta at Greenwich.

SIRS,—It is good to see the telephoto of the Greenwich Hospital "Nelson" tympanum reprinted as one of your supplementary plates (March 6). Would it not have added a little to the interest if you had stated that it was carried out in Coade's terra-cotta? Mr. Tavenor-Perry refers to it as such in his paper in the "Architectural Review," June, 1913.

I would like to ask if anyone can say what became of the great frieze by Bubb, which adorned the old opera-house in the Haymarket, a building which disappeared to make room for the Carlton Hotel and the present theatre.

WALTER GANDY.

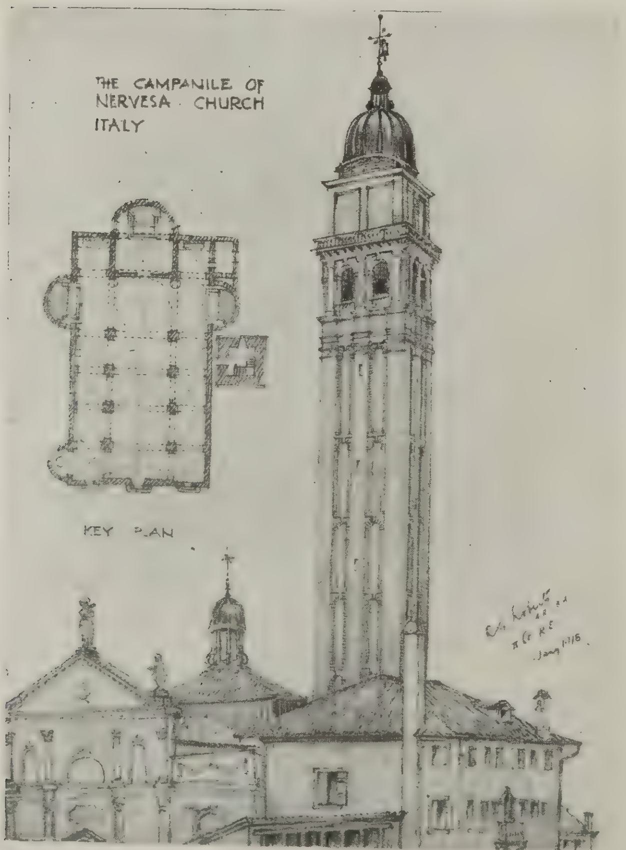
Nervesa Church, Italy.

SIRS,—I am sending you herewith a sketch, made under shell fire, of the campanile of Nervesa Church, Italy. The campanile is 21 ft. 6 in. square externally, and 145 ft. high to the top of the square. It is almost entirely of brick, and carries four beautifully modelled bells. The church itself is of the plastered and painted variety so common in this country.

R. G. ROBERTS.

Finance of Housing.

SIRS,—I respectfully submit for your consideration a contrast between the proposals of the Government as to housing and those of my pamphlet, a copy of which I sent to you in January.


THE CAMPANILE OF NERVESA CHURCH ITALY
KEY PLAN

CAMPANILE OF NERVESA CHURCH, ITALY.

(*From a Sketch by R. G. Roberts, A.R.I.B.A.*)

The Government propose that the loss on the hou ing shall be apportioned 75 per cent. to the Exchequ and 25 per cent. to the local authorities, the lo thereby falling on the already overburdened taxpay and ratepayer.

I suggested the imposition of house duty on hous under £20 a year, chargeable to the owner, recharg able to the tenant, and the extra rent, about one penn per week, provided for in readjustment of wages whi must come after the war; so that there would be n loss to the Exchequer, to the local authorities, n burden on taxpayer or ratepayer; and the who finance would be effected by a slight increase of re balanced by a slight adjustment of wages—an equi able and economic solution of the problem.

The Government proposal, by promising 75 p cent. to the local authorities, and not even suggestin the same to private enterprise, practically gives th death blow to the latter, as it cannot, under such handicap, compete with the local authorities. Accor ing to the Land Inquiry Report 1912-13, private ente prise has in the past supplied 99 per cent. of the hou ing. This will have to be done in the future entire by the local authorities, with very serious burden o the taxes and rates, and may have in the future to b borne entirely by the rates.

EDWD. M. GIBBS.

THE PLATES.

Memorial Tombstone to the Late Lord Armitstea

THIS memorial, lately erected in the Wester Cemetery, Dundee, consists of a built tomb stone, 6 ft. 6in. long, 2 ft. 7 in. broad, an 3 ft. 3 in. high from top of step or base. It is bui entirely of Portland stone. The architect was M J. Donald Mills, F.R.I.B.A., of Dundee, and th sculptor Mr. Thomas Beattie, of Edinburgh.

A Carved Mirror-frame.

It has been calculated that if Grinling Gibbons wa really the author of all the carvings that are attr buted to him he would have had to work unceasingl day and night, during a period much exceeding h seventy-three years of life. Hence, without the con firmation of documentary evidence, attributions o authorship are accepted with a certain amount o reserve. The delicately and elaborately carved mirro frame illustrated on one of our supplementary plate has all the characteristics of the Gibbons manner, an it belongs indubitably to the late seventeenth or earl eighteenth century period. It is of limewood, and i 6 ft. 5 in. high by 4 ft. 10 in. wide.

The Queen's House, Greenwich Hospital.

"The Queen's House," once the abode of Quee Henrietta Maria, was erected from designs by Inig Jones. Wren intended it to be the dominating featur of the entire hospital group; but it is far too small i scale and too far away from the main block to fulfi effectively such an important function.

The Palais de la Nation, Brussels.

The Palais de la Nation, originally the palace o the Council of Brabant, forms a many-paviliones symmetrical façade extending the whole width of th Pau. It was begun by Guimard, in 1779, and was hi chief architectural work. Burnt down in 1820, it wa rebuilt by Van der Straeten, and has been added t from time to time, but with consistent good taste Normally it houses the Senate and the Chamber o Deputies and several ministries.

INDIA'S FIRST CONSULTANT ARCHITECT.

HE following interesting appreciation of Mr. James Ransome's work in India appeared in a recent issue of our contemporary "Indian gineering":—

When the true history of British architecture in s country (India) comes to be written, the advent of first consulting architect to the Government of lia will no doubt be given its proper prominence.

Mr. James Ransome, born in 1865, was educated Rugby at the time when Dr. Jex-Blake was the idmaster, and came of a family of some reputation a certain line. His great-grandfather discovered the thod of chilling iron by casting into iron moulds, an cle invented the silicate bath resulting in the first ificial stone, and his father was the founder of the n A. Ransome and Co., of Newark-on-Trent. He aself spent some six months in his father's foundry h a view to training for a position in the works; but found that his vocation did not lie that way—he shed to be an architect, and he was articled to the Mr. C. H. Driver, of Westminster. Later, he ered the office of Sir Ernest George—then Ernest orge and Peto—and it is interesting to record that this office Messrs. Baker and Lutyens, whose names now so well known in India in connection with new lhi, were contemporary fellow-students. At the age twenty-one, Mr. Ransome obtained his first commis- n, a house for Lady Walkin Walker at Pinner, and the strength of this and an invitation to remodel he Oaks," a famous old house formerly belonging he Derby family, he established himself in London, l continued in independent practice until he was ered the appointment of consulting architect to the lian Government.

On arrival in India, Mr. Ransome made an exten- e tour of the country in order to study the new con- ons he had to face; and his observations convinced n that the policy of attempting to adhere strictly to dition in designing buildings for the plains was the ynote of much of the architectural failure of the t. He felt that unless this were discontinued it uld preclude any advance on right lines in the ure, and increased experience only confirmed this viction. Having convinced himself, Mr. Ransome isistently maintained his attitude in the face of midable opposition from critics, who had looked to an India sprinkled with buildings faithfully repro- cing the beauties of one or other of the accepted les of architecture. It came as a shock to them to rn that Mr. Ransome proposed to start on purely itarian lines, and that he would be well content h his work in India if, although he failed to add one utiful building to the country, he could feel that h successive design was a step onward in the ladder ch would ultimately lead to a style of Anglo-Indian hitecture ranking with the best that other countries ld produce. It was a great aim, and it was unfor- ate that Lord Curzon should have held other views. was genuinely in earnest, it was his farsightedness t laid the foundation of architectural progress, but en he insisted on traditional styles in all their purity India he was unquestionably wrong, and the result s a waste of valuable time, and almost a deadlock. vas not until Lord Curzon left India that any satis- tory progress was achieved.

t is interesting to note how in his earlier work Ransome interpreted for the special requirements India the various styles to which he was instructed conform. The classic façades of Wellesley Place l Council House Street in Calcutta, the English tages which house the Imperial Cadet Corps at hra Dun, the French renaissance of his design for Rangoon Chief Court, the English renaissance of the Agricultural College at Pusa and the Secretariats at Lahore, and the Gothic design for the Cantonment Church at Lucknow, all display the same insistence on screening the main walls from the direct rays of the sun, for which none of these styles affords facilities. But all these designs must be regarded as examples of enforced ingenuity rather than as spontaneous expression of ideals. They were strikingly dissimilar from any designs of the past, and if only for that reason it was unlikely that they should be welcomed with enthusiasm; but the influence which they have exerted upon subsequent design shows that the lines Mr. Ransome laid down were understood and appreciated by his successors.

"That these buildings did not satisfy their author may, however, be inferred from the marked contrast between them and his later work, executed under conditions which freed him from convention. He had previously instituted a competition amongst architects practising in England for the most satisfactory treatment, irrespective of style, of a building whose verandahs, restricted in width, should exclude the sun's rays from the main walls. The results of this competition, embodied in a volume published by the Government of India, suggested many ideas of which Mr. Ransome freely availed himself. His Presbyterian church at Amballa is based on Byzantine traditions with which he has taken few liberties, but in such designs as the Secretariats at Nagpur and Dacca, the Residence for the Agency at Mount Abu, the consulate at Ahwaz, the sanatorium at Puri, he would seem to have freed himself from all restraint, and to have exercised the independence which he held essential to the production of successful buildings in the plains. But strongly as he resented the yoke of style in dealing with such designs, his buildings for the climate of the hills demonstrate his leanings towards the types of building to which Europeans are accustomed. Ridgewood Place, the house he remodelled for his home in Simla, is typically English, as is also the Simla Library, though since disfigured by the enclosed verandahs. His hill churches might have been transplanted from Switzerland, and his first design for the Kennedy House Secretariat recalls the features of French *châteaux* on the Loire. This last design was completed just before the earthquake of 1905, and it was then decided that it would be desirable to construct the building of reinforced concrete. This involved a fresh design, and though it was never carried into effect, it was typical of Mr. Ransome's views inasmuch as it frankly expressed the material to which he worked.

"In all his work Mr. Ransome was the avowed enemy of shams and ostentation. He advocated the dignity of simplicity, and abhorred the vulgarity of untutored imitation. For instance, he strongly opposed the representation of lithic forms through the medium of plaster. He encouraged the judicious use of Hindu and Saracenic ornament; but, upholding the maxim that 'no art is of any value except so far as it reflects the conditions of its own age,' he deprecated the wholesale employment of such styles for European use. It was his opinion that architects should borrow from them only such principles and features as were suited to the needs of the day. And whatever his views, he maintained them with sturdy independence, a fearless courage of conviction, and disregard of rebuffs or antagonisms, favour, or patronage. He was fighting every inch of the way; but if we step back from the details of his work, and view what he accomplished in its true perspective, we must admit that his five years of office were a vital period and a message for the future. Since he left there have been few buildings of importance erected in India which do not in some measure reflect his influence."

COMPETITION.

PUBLIC SCHOOL BUILDINGS, BOLTON.

The following is a summary of the conditions and instructions just issued to architects desiring to take part in the above competition:

The trustees and Lord Leverhulme invite architects to submit preliminary designs in competition for new public school buildings for boys and girls, with chapel, assembly halls, and other accessories, which it is proposed to erect on a site adjoining Chorley New Road, Bolton, as soon as circumstances permit. Mr. John Bradshaw Gass, F.R.I.B.A., and Mr. Arthur John Hope, Licentiate R.I.B.A., of Bolton, have been appointed assessors. The competition is open to all architects practising in the United Kingdom. The trustees and Lord Leverhulme may at their discretion, on the advice of the assessors, select designs from the preliminary designs, the authors of which may be invited to submit final designs, and each architect concerned will receive an honorarium of fifty guineas in addition to the following premiums: First, 250 guineas; second, 150 guineas; and third, 100 guineas.

Owing to the present condition of national affairs, the trustees are unable to give any undertaking that the building shall be commenced within any specified time, but if they are able to arrange for it to proceed within three years of the publishing of the award, it is intended that the author of the design placed first shall be appointed architect and entrusted with the carrying out of the work, unless the assessors shall be satisfied that there is some valid objection to such employment. If such appointment is made but no instructions are given to proceed with the selected design within the specified time, the author thereof shall be entitled to a sum equal to 1¼ per cent. of the estimated cost on pre-war prices, but not exceeding 1,000 guineas, the whole of which sum shall be considered a part of his ultimate commission if the work is subsequently proceeded with from such design or any reasonable modification thereof.

All questions are to be addressed to Messrs. Bradshaw Gass and Hope, 19, Silverwell Street, Bolton, on or before April 13. All answers which the assessors consider necessary will be sent as soon as possible to each competitor, and such answers will form part of the conditions of competition. No further questions will be considered. All designs and the reports accompanying same must be sent in without name, motto, or distinguishing mark of any kind, and each set must be accompanied by a sealed letter containing the name of the author and a declaration that he is the bona-fide author of the design he has submitted.

Details of Requirements.

Designs must be sent in carriage paid and endorsed on the outer cover "Design for the Bolton School," and addressed to the assessors, Messrs. Bradshaw Gass and Hope, 19, Silverwell Street, Bolton, not later than June 29, 1918.

The following drawings are required: A plan of each floor and at least two sections, and at least three elevations drawn to a scale of 16 ft. to 1 in., with such further sections and elevations as the competitor may think necessary. A block plan to the scale of site plan showing the position of the new buildings in relation to those now on site. Sketch details of a part of the main front and a part of the chapel to a scale of half an inch to one foot. (Sketch details are optional, but desirable.) A sketch perspective of the main frontage to the Chorley New Road, in which the building shall not be more than 24 in. in length, to show the general grouping of the block. Actual surroundings not to be shown—only the new building. (The perspective view is optional, but desirable.) A separate sheet of plans (may be a t ing, paper-mounted) showing the port included for erection within the £50 estimate.

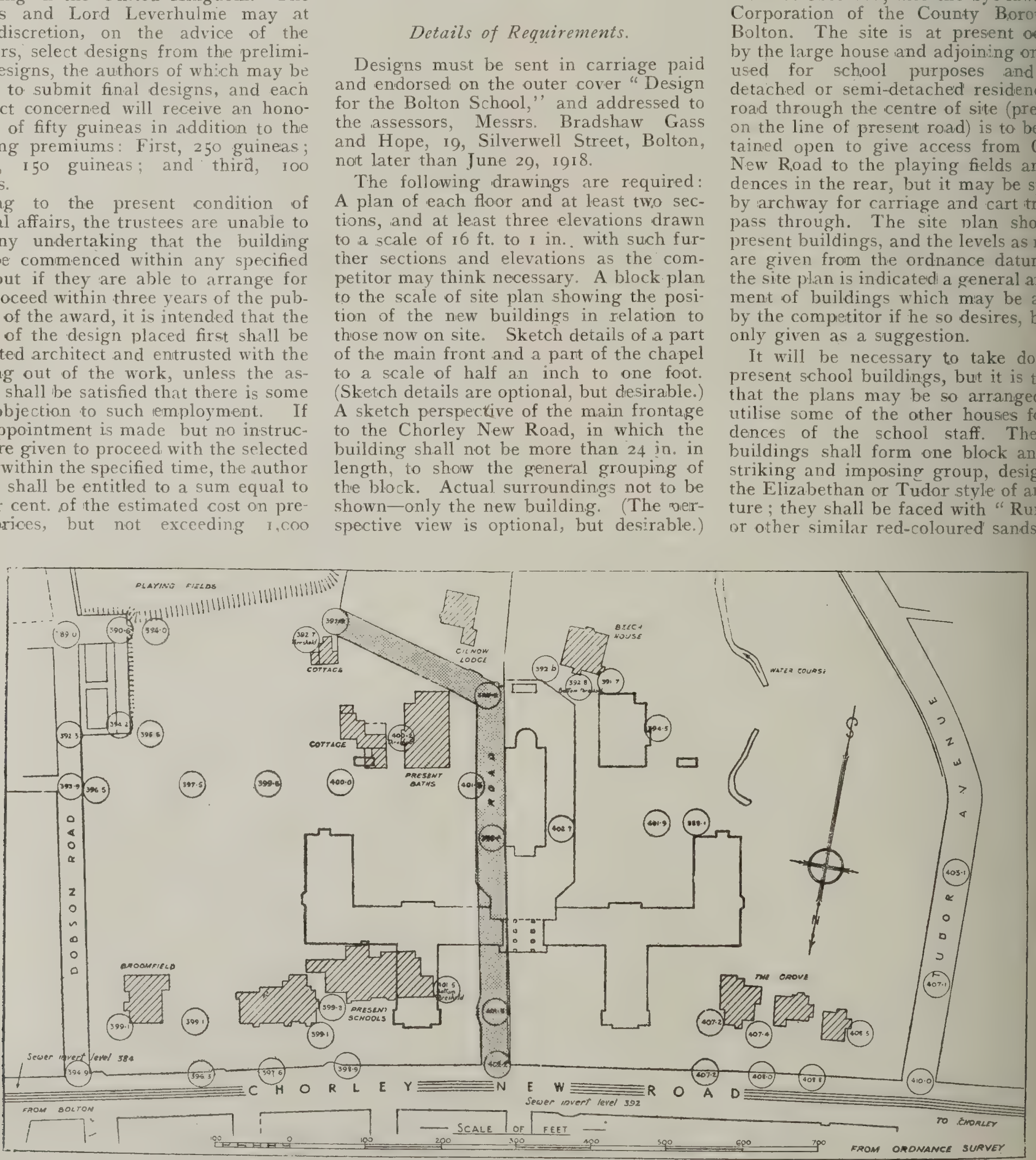
Cost has to be estimated (1) on pre- prices, (2) on such a basis of price a the competitor's judgment the work wil able to be contracted for within tw months of the conclusion of the war.

The plan must be arranged so that building may be erected in sections, competitors must state in their rep what portions of the building can erected and furnished for the sum £50,000 based on pre-war prices.

General Particulars.

The building regulations for second schools issued by the Board of Educa must be observed, also the bye-laws of Corporation of the County Borough Bolton. The site is at present occu by the large house and adjoining ones used for school purposes and o detached or semi-detached residences. road through the centre of site (prefera on the line of present road) is to be m tained open to give access from Cho New Road to the playing fields and r dences in the rear, but it may be span by archway for carriage and cart traffi pass through. The site plan shows present buildings, and the levels as mar are given from the ordnance datum. the site plan is indicated a general arrar ment of buildings which may be ado by the competitor if he so desires, but only given as a suggestion.

It will be necessary to take down present school buildings, but it is thou that the plans may be so arranged a utilise some of the other houses for r dences of the school staff. The m buildings shall form one block and b striking and imposing group, designed the Elizabethan or Tudor style of archi ture; they shall be faced with "Runco or other similar red-coloured sandston



Note.—Roadway shown Stippled to be maintained, or alternative road arranged from Chorley New Road for access to Gilnow Lodge. Outline Plan indicates general position of new building.

SITE PLAN OF PUBLIC SCHOOL BUILDINGS, BOLTON.

Schedule of Accommodation.

hapel to seat 1,000, with space for an and accessories. To be readily ssible from both schools.

Girls' School.

eparate entrances for seniors and ors from front or end, with covered for early comers. Entrance into play- und on south side; well-lighted idors, 8 ft. to 10 ft. wide. Staircases, to 6 ft. wide, open one side, arranged convenient use and to give adequate pe in case of fire. Assembly hall to 500 on main floor, with gallery; plat- n end available as stage, and two ring-rooms, unless adjoining rooms be made available; to be central and lily accessible, both from the school from outside, with necessary safety s. Classrooms as follows, to be nged to get as much sun as possible; ave good cupboard space and open fire- e to each room: One classroom for ty-five pupils; thirteen classrooms, n for twenty-five pupils; twelve class- ns, each for twenty pupils. Science artment: One elementary science ratory for twenty-five pupils, one entary chemical laboratory for twenty- pupils, with balance-room adjoining. botanical laboratory for twenty-five ils, with small greenhouse adjoining. senior laboratories for ten pupils n, one to adjoin balance-room. Two ure-rooms, each for twenty-five pupils, ining laboratories and with prepara- rooms and stores and science mis- s's room. Art department for fifty ils, divisible, and with art mistress's n and art store room. Housecraft artment for seventy-five pupils. kery classroom to be near the kitchen laundry adjoining; sewing, etc., room sunny side. Room for housecraft tress and necssary stores. Staff-rooms: dmistress, secretary, doctor, waiting, interview room, available also for mittee, two staff-rooms for teachers, itors' room, lavatory, w.c., with ssing and cloakroom accommodation. cial cloakroom with lavatory, etc., for ector. Adequate store-rooms, includ- book and stationery store, with distri- on counter. Dining-hall for 200, with hen, service-room, and dinner lift, if ired, and necessary pantries, stores, Living-rooms for matron. Small n for remedial exercises (massage by mistress). Rest-room adjoining— er matron's supervision. Living- ns for porter and his wife and accom- lation for six women servants to live in, servants' sitting-room and bath-room, Separate entrance and staircase. rary: This may be central and mon to the two sides and for special lies; alcoves formed in fittings, etc. ding-room adjoining library. Music- ns: Music classroom for fifteen pupils eight practice-rooms. Gymnasium, necessary changing rooms and other ssories. Instruction-room. Games, es, etc. Large play-room may be in i-basement or in separate block. Girl des: Assembly and orderly room, with mandant's office. Ditto. Two small ns for arranging flowers, near lava- es. Cloakrooms in four separate divi- s, each with ample dressing and ging and drying-rooms, lavatories, 's, and bicycle-room; all as required econdary School Regulations. Service- n on each floor. Swimming bath in ched building, with dressing-boxes for and other accessories complete.

Boys' School.

Separate entrances for seniors and juniors from front or/and end, with covered part for early comers. Entrance into playground on south side; well-lighted corridors 8 ft. to 10 ft. wide. Space to be provided for book lockers outside the classrooms in the senior division. Staircases 4 ft. to 6 ft. wide, open on one side, arranged for convenient use and to give adequate escape in case of fire. Assembly hall to seat 500 on main floor, with gallery; platform end available as stage, with two retiring rooms, unless adjoining rooms can be made available; to be central and readily accessible both from the school and from outside, with necessary safety exits. Classrooms as follows to be arranged to get as much sun as possible; to have good cupboard space and open fireplace to each room: Two classrooms, each for thirty-five pupils; thirteen classrooms, each for twenty-five pupils; ten classrooms, each for twenty pupils. Science Department: One elementary science laboratory for twenty-five pupils, one elementary physics laboratory for twenty-five pupils, one advanced physics laboratory for ten pupils, one elementary chemical laboratory for twenty-five pupils, one advanced chemical laboratory for ten pupils, with balance room between. Two lecture-rooms, each for twenty-five pupils, adjoining laboratories, with preparation rooms and stores, and science master's room. Art department for fifty pupils, divisible, and with art master's room and art store room. Handicraft department for manual training for fifty pupils, with master's room and store for materials and tools. Staff-rooms: Headmaster, secretary, doctor, waiting and interview room, available also for committee; staff-rooms for men and women teachers, monitors' room, lavatory, w.c., and cloakroom accommodation for each. Adequate store rooms, including book and stationery store, with distribution counter. Dining-hall for 200, with kitchen service room and dinner lift, if required, and necessary pantries, stores, etc. Living rooms for matron. Small room for remedial exercises (massage by drill instructor). Rest room adjoining, under matron's supervision. Living-rooms for porter and his wife, and accommodation for six women servants to live in, with servants' sitting-room and bathroom, etc., separate entrance and staircase. Library: This may be central and common to the two sides and for special studies. Alcoves formed in fittings. Reading-room adjoining library. Music classroom for fifteen pupils and five practice rooms. Gymnasium, with necessary changing rooms, shower bath, and other accessories. Instruction room. Games, stores, etc. Large play-room may be in semi-basement or in separate block. Cadet corps (150): Armoury and orderly room, with commandant's office. Ditto. Scout troop: Room with four small instruction rooms partitioned off, and office for scoutmaster. Ditto. Cloakrooms separate for monitors, seniors and juniors, with changing and drying rooms, lavatories, water-closets, and urinals, and bicycle-room; all as required by Secondary School Regulations. Service-room on each floor. Present swimming bath will be utilised for boys.

General.

Central heating made available for both schools, and with extension for swimming baths. School heating by hot water; open fireplaces subsidiary only. Ventilation as Secondary School Regulations. Storage for coal, cinders, etc. Coal lift accessible at each floor. Electric lighting throughout. Vacuum cleaning plant installation.

STATE AID FOR HOUSING.

For the encouragement of a large development of housing throughout the country at the conclusion of the war, the Government have announced that they are prepared to afford substantial assistance from public funds to local authorities who undertake to carry out schemes under the Act of 1890. In a circular to metropolitan borough, town, and district councils, the Local Government Board state that the Treasury has laid down the following principles:

The full cost of the scheme should, in the first instance, be met out of the funds of the local authority by means of a loan to be raised by them for a period of not less than seven years, and the necessary State assistance should be given in the form of a grant of a percentage of the loan charges sufficient to relieve the authority of 75 per cent. of the estimated annual deficit. At the end of the period above referred to the property should be valued, and 75 per cent. of the excess (if any) of the amount of the loan outstanding over the then value of the property should be met by the State, either by writing off a portion of the outstanding liability (if the money was borrowed from State sources) or by the Government undertaking responsibility for the appropriate proportion of the loan charges for the remainder of its currency.

Any loans by the State for the purpose of assisted schemes would be made at the full market rate of interest current from time to time, and not at the preferential rates ordinarily allowed for housing loans, in order (1) that the whole of the State assistance may be given under one head, and (2) that local authorities may be encouraged to borrow on their own credit rather than to have recourse to State capital funds.

In cases in which 25 per cent. of the deficit in respect of any scheme would exceed the produce of a rate of a penny in the pound on the area chargeable, the Board are to have discretion to increase the grant beyond 75 per cent., subject to the condition that the amount of the deficit to be borne by the local authority shall not be reduced below the produce of a rate of a penny in the pound.

It is made clear that the precise date at which the execution of any schemes approved by the Board can be commenced must depend on circumstances which cannot at present be foreseen, and that the financial position may be such that it may be necessary to give precedence to the more urgent cases; and, further, that it is only in the very exceptional circumstances of the national emergency that the Government are proposing to give substantial financial assistance for the execution of housing schemes.

In response to the circular letter of July 28 last the Board have received up to the present returns from over 80 per cent. of local authorities under the Housing Acts, and they are glad to note that nearly 900 of these bodies have stated that they have prepared or have in contemplation schemes for the erection of a total of approximately 150,000 houses.

Schemes must be prepared in relation to a particular site selected as being the most suitable available for the purpose, and the aim should be to provide that in ordinary circumstances not more than twelve houses (or in agricultural areas, eight houses) should be placed on an acre of land wherever this is possible without materially increasing the cost of the scheme. It is desirable that the local authority should endeavour to make such arrangements for the acquisition of land as will not involve the payment of the purchase money until after the war. In only very exceptional circumstances could the Board sanction loans for the purpose during the war, and then only for very small amounts or for a proportion of the purchase money.

It will be a condition of any financial assistance given by the Government that the erection of the houses shall be commenced within two months from the date of the sanction of the Board to any loan, and that the houses shall be completed by a date fixed, not being more than twelve months from the date of sanction unless circumstances are very exceptional. Provision will, however, be made for an extension of the term where circumstances necessitate this. It is hoped that, in regard to each district in which there is an admitted need for additional houses which will not be met by private enterprise, the local authority will at once give instructions for the preparation of a housing scheme if this has not already been done, and submit their proposals to the Board with as little delay as possible.

NEWS ITEMS.

A New "Skyscraper."

It is announced that the Cunard Company has purchased Stevens House at 27, Broadway, New York, and intends to erect on the site a twenty-six-storey building. The scheme involves an outlay of ten million dollars.

Appointment of a District Surveyor.

The London County Council has appointed Mr. Lawton R. Ford as on and from March 21 to be interim district surveyor for the district of St. Marylebone, under the London Building Acts, 1894 to 1909. His office is No. 60, Haymarket, S.W.1.

A Builder's Will.

Mr. Walter Bell, of 156, Effingham Street, Rotherham, Yorks, builder and contractor, whose death occurred on February 27, has left estate valued at £36,965 19s. 10d., with net personalty £11,813 18s. 4d.

Building Societies' Operations.

Mr. J. H. Thomas, M.P., speaking at the annual meeting of the Co-operative Permanent Building Society, stated that the building societies of this country provide an average of £9,000,000 every year in advances to working-class people who desire a house of their own.

London Housing Conference.

The Housing Conference for London and Home Counties, at the Caxton Hall, Westminster, on March 15, passed a resolution urging that legislation promised by the Government in 1913 with regard to the amendment of the Finance Act, 1909, should be carried out in order that the great obstacles to the building of working-class houses might be removed. The conference also declared its opinion that compounding for rates should be done away with, and that the landlords should be made liable for the collection of them. It was further resolved that local authorities should be enabled to acquire undeveloped land for housing purposes at the price at which it was valued under the Finance Act, and that local authorities should be empowered to acquire and develop estates.

Building Trade Conditions.

In the House of Commons, Mr. G. H. Roberts (Minister of Labour), in reply to Mr. Morrell (L., Burnley), stated that the Ministry of Labour is in consultation with the other Government Departments concerned with a view to the early settlement of procedure for dealing with rates of wages and working conditions in the building trade.

Building Trade Operatives' Wages.

The Committee on Production and the Special Arbitration Tribunal have given the following decision in connection with a bonus for building trade operatives engaged on the construction of Government buildings—a question which had been referred to them by the Ministry of Labour: "Plain time workers are to receive a bonus of 12½ per cent. and piece workers a bonus of 7½ per cent. on earnings from first pay in January, 1918. The award applies to men in the employment of the Ministry of Munitions, Air Ministry, Office of Works, Admiralty, and War Office. In the case of men not in the direct employment of these departments, the departments are to authorise their contractors to pay the advances to the men in the employ of the contractors engaged upon the erection of buildings for the departments."

Parliamentary Committees on Building.

The Departmental Committee which has been considering the building by-laws has just held its final meeting for the taking of evidence. Afterwards it will proceed to the discussion of its report and recommendations. The inquiry was set on foot before the war, and Mr. Herbert Lewis, M.P.—then Parliamentary Secretary to the Local Government Board—acted as chairman. At the beginning of hostilities its operations were suspended for a time, and at a later period the personnel was reconstituted, with Mr. Stephen Walsh, M.P., the present Parliamentary Secretary, as chairman. Another Committee which has been sitting at the Local Government Board, under the chairmanship of Sir J. Tudor Walters, M.P., is dealing with building construction, a matter of very great and pressing importance in view of the shortage of houses all over the country, and especially in the vicinity of large industrial centres. The Committee is still taking evidence, and will do so for some time.

Birmingham Building Trade Trouble.

Trouble is threatened in the allied building trades of Birmingham and district. In accordance with the trade rules, the operatives gave notice on October 31 for an increase of wages and for alterations of working rules, the notice to expire on March 31. In turn, the application has engaged the attention of the Employers' Federation, the local Conciliation Board, the Midland Centre Conciliation Board, and the National Conciliation Board, but no settlement has been arrived at, and this fact has caused a considerable amount of feeling amongst the employees. Dissatisfaction has also been created by the refusal
of the employers to pay the 12½ per c
recently awarded. The building t
operatives on the construction of build
authorised by Government Departme
which comprise practically all buil
operations at the present time, in refer
to which an appeal has been made to
Committee on Production, held a
meeting last Sunday morning to cons
the position, which is described as cri

French and English Art.

Under the auspices of the Anglo-Fr
Society, Mr. Laurance Binyon, Assis
Keeper of Prints and Drawings in
British Museum, has delivered a lectur
King's College on "The Relation betw
French and English Art," illustrated
excellent coloured lantern-slides. A
describing the characteristics of Fre
and English art, which are expression
national temperament, Mr. Bin
pointed out some contrasts and
parisons. Dealing first with architect
he compared French and English ca
drals, town and country houses,
gardens. He contrasted early paintin
each country, and spoke at some lengt
the French artists in England in the se
teenth and eighteenth centuries.
mutual relations were still greater in
nineteenth century; Turner and Benin
went many times to France, while G
cault and others came to London.
mentioned Constable's influence, whic
so strong on the French school of l
scape painters. During the same pe
there was a revival of etching in Fra
and in England, where the influence
Legros was so deeply felt. Then c
impressionism, and everyone knew Mon
wonderful pictures of the Thames. A
a few remarks on contemporary art,
Binyon concluded with optimistic h
for the future of artistic relations
reciprocal influence.

Warning to Laggard Local Authorit

Mr. Hayes Fisher, President of
Local Government Board, addressing
annual meeting of the County Committ
at Westminster Guildhall recently,
one of the most important questions w
would come before local authorities im
diately after the war was the questio
housing for the working-class populat
Hitherto 95 per cent. of working-c
houses had been provided by pri
builders, but in view of the enhanced
of material and labour it would be h
less to look to the private builder to e
300,000, or even 150,000, houses for
working classes. The Local Governm
Board therefore naturally turned to
local authorities, and were hoping
they would enter into a partnership
the Government in order that they mi
at least succeed in commencing a solut
of this problem. He had offered l
housing authorities substantial finan
assistance to induce them to enter
housing schemes after the war. T
assistance was so substantial that
schemes would involve very little risk
the rates. He hoped to be able to mak
more definite announcement to l
authorities very soon. If he discove
among housing authorities laggards in t
duty who did not want to build or help
build where there was a great neces
for houses—if he discovered conscienti
objectors in the way of building house
he would ask for powers to clear them
of the way and substitute other local bo
who showed greater willingness.

WAR·BVILDINGS·SECTION

A REINFORCED - CONCRETE AIR-RAID SHELTER.

is generally agreed that air raids on his country will be a feature of war ity to which the Germans will give al attention during the coming spring summer months. With official sanc- steps are being taken by several ufacturing firms to provide and erect b-proof shelters.

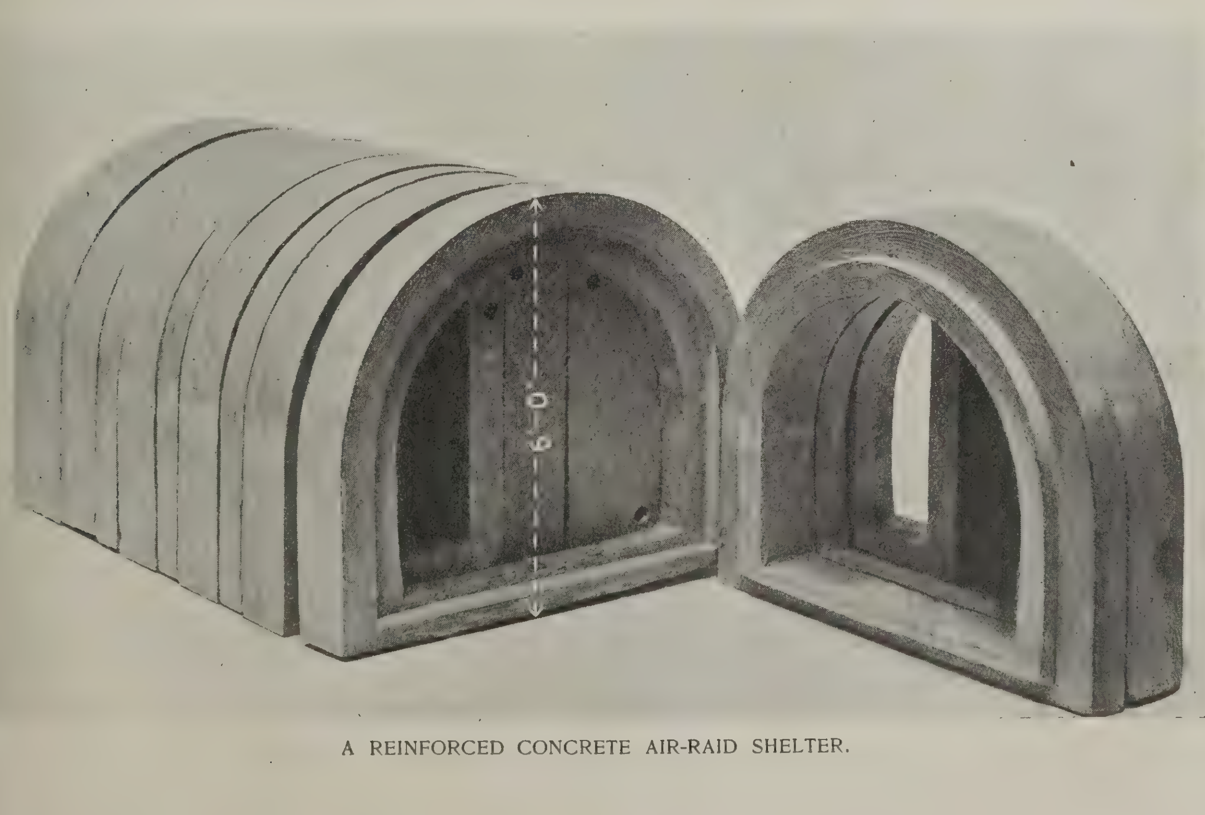
ivate individuals, also, here and there, been at considerable pains to pro- themselves with more or less efficient outs and the like, but many, though e desirous of having some more secure eat than is afforded by the average rban home whilst a raid is in progress, naturally think twice about building a concrete pill-box or digging a deep trench in their garden.

The prospect of the inevitable litter and discomfort generally chokes all desire for immediate action, and, in addition, without having drawings specially prepared, it is impossible to obtain an estimate of cost.

A shelter, therefore, which can be bought with the same facility as any article of furniture, and be delivered complete ready for immediate use at the purchaser's home, is likely to be of general interest, and we have much pleasure in drawing the attention of our readers to such a shelter.

The accompanying drawings will give a clear idea of the general construction, the basis being the use of rebated arched concrete rings, which are also reinforced, and therefore capable of withstanding an enormous impact. The width across the base (generally 6 ft.) is made as small as possible so as to secure an arch of maximum strength. The length can be just as required.

It will be noted on reference to the drawings that access is gained to the inner chamber by means of indirect openings through an outer lobby, disposing of the necessity for a door, which (unless made

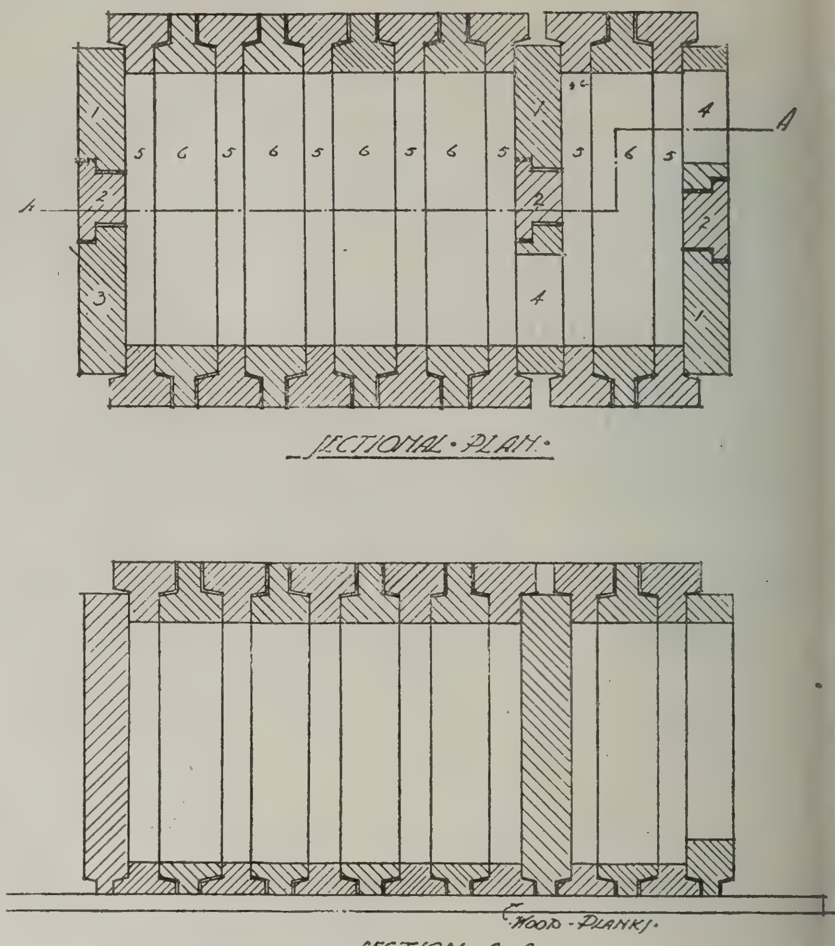


A REINFORCED CONCRETE AIR-RAID SHELTER.

as the door of a safe, and consequently very expensive) would be a weak spot.

On the arched top practically only the central space of 1 ft. is liable to a direct hit, and elsewhere the blow would be only partially effective. The great weight and compactness of the shelter would secure it against overturning, and, judged in the light of the way which relatively thin reinforced concrete floors have resisted bombs, it seems certain that an arched reinforced ring 12 in. thick would give immunity from damage to the occupants of the shelter. The internal arrangements include two long seats, one on each side, and an electric lamp. The shelter illustrated provides accommodation for eight persons, and we understand the cost runs out at about £10 per head, the figure varying somewhat with locality.

To our definite knowledge one of these shelters has been fixed inside a house, where, of course, it is more easily accessible than in the back garden. It is probable, however, that most people will prefer to retain their drawing-room for its customary uses. Readers who are interested should communicate with the Air Raid Shelter Co., Caxton House, Westminster, S.W.1.



PLAN AND SECTION.

GOVERNMENT RESTRICTIONS AFFECTING THE PAINTING INDUSTRY.

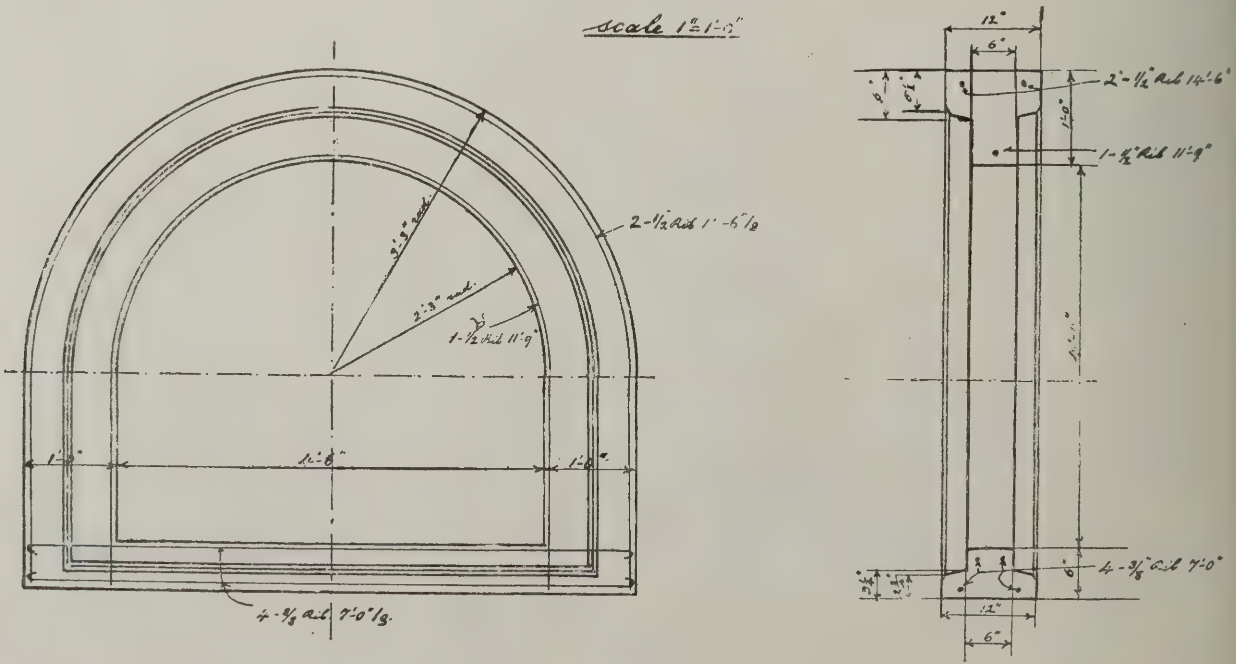
Messrs. John Line and Sons, Limited, paint manufacturers, 14, Alfred Place, London, W.C., inform us that the number of inquiries from decorators for information about articles restricted has of late become so large that they felt compelled to draw up a résumé of those orders affecting the decorating trade. This they submitted to the Ministry of Munitions, who unofficially approved of the idea, though accepting no responsibility for statements made. Messrs. Line are prepared to send a copy to any architect, builder or decorator on application.

Abstracts from Government Regulations Affecting the Painting Industry of Great Britain, with Remarks Thereon.

Since war broke out various Orders in Council have been issued affecting many articles used by the painting and decorating trades. A lack of publicity given to some of the Orders at the time they were made has resulted in wide-spread ignorance of their scope, and in our opinion little blame has attached to the decorator if he unwittingly has contravened their restrictions.

The large and increasing number of inquiries from members of the trade who desire to conform strictly to the regulations lead us [Messrs. John Line Sons] to think that a statement of present position as we understand it w be of service at the present juncture.

In offering the following summar Orders, with appropriate remarks ther we have taken every possible care to sure accuracy, though we cannot be responsible for any unintentional statement. Copies of the official Or may be obtained as indicated below.



A REINFORCED CONCRETE AIR-RAID SHELTER: SECTIONS.

White Lead.—Original Order.

hen the Order first came out, white
in oil, white lead paint, and other lead
ts not exceeding 1 cwt. could be used
irgent and necessary repairs and re-
als on any work. A concession was
made to the effect that any paint
aining lead, manufactured before
l 24, 1917, might be sold and
without restriction. Finally the
t. limit was reduced to 28 lb., for
nt and necessary repairs and renewals.

Present Order.

n September 1, 1917, a new Order was
ed, which is still in force. The fol-
ng are the salient features as they
y to the decorating trade: (1) The
ity for purchasing or using up to 28 lb.
e lead or lead compounds for urgent
necessary repairs and renewals is
lutely withdrawn. (2) Persons de-
us of using white lead or lead com-
nds should apply for a licence to the
ctor of Materials, AM2/E, Hotel Vic-
, Northumberland Avenue, London,
.2, marking the envelope "Lead
nce," giving full particulars of the
k and stating the exceptional condi-
s under which the use of lead is re-
ed. At the same time it should be
rstood that such licences can only be
d under quite exceptional circum-
ces. (3) Persons engaged on a con-
"certified to be within Class 'A' in
Order of the Ministry of Munitions as
iority, dated March 8, 1917, and made
ibstitution for Circular L. 43, or certi-
by or on behalf of the Minister of
itions to be within Class 'B' of the
Order" may obtain their require-
ts in white lead or lead compounds for
contract without licence. (4) All
ons shall within seven days from the
day of each month send in monthly
rns of: (*a*) All lead held by them.
All lead purchased . . . for future de-
y and not yet delivered. (*c*) All lead
ered to them during the preceding
th. But no return is required from
e whose total stock of lead in hand
on order for future delivery has not at
time during the preceding month ex-
ed 1 cwt. Returns shall as regards
ted, old and scrap lead and lead re-
es be sent in to the Director of
erials AM2/ES, Hotel Victoria, North-
erland Avenue, W.C.2, and as regards
ther kinds of lead, to the Director of
erials, AM2/E, Hotel Victoria,
humberland Avenue, W.C.2. (5)
expression "lead" means pig lead,
t lead, lead pipe, old and scrap lead,
residues, white lead, dry or in oil,
e lead paint, lead alloys, lead com-
nds, and any paint containing lead.

(6) The Ministry of Munitions has agreed to exempt lead paints containing less than 3 per cent. of lead from the scope of this Order.

Linseed Oil.

An Order dated May 1, 1917, required a licence for the purchase of linseed oil except in the case of those persons who did not buy more than one ton at a time, nor more than five tons in any one calendar month. This Order was supplemented by one dated December 21, 1917, which provides as follows: "No person shall, after the date of this Order, treat or permit to be treated, any of the said oils or fats [including linseed oil] in such manner as to render the same unfit or less fit for use in the manufacture of human or animal food." The use of linseed oil in paint is clearly prohibited by this clause. The Ministry of Munitions have since stated (January 19, 1918) that no further permits or licences to buy or sell linseed oil for general use will be issued. "A quantity, however, of this kind of oil is still in circulation which was outside the limits fixed by the above Order, and so far as this is available it may be used for general purposes." This would appear to indicate that painters may use existing stocks of linseed oil, but cannot purchase any more when these are exhausted. The Ministry of Munitions have intimated that stocks of boiled oil may be sold and used, but no more may now be manufactured.

Turpentine and Turpentine Substitute.

An Order dated January 25, 1918, stipulates that no person shall purchase or take delivery of more than five gallons in all of turpentine or turpentine substitute in any one calendar month without a licence. All applications for licences under this Order are to be addressed to The Controller, Mineral Oil Production Department (M.P.S.), Ministry of Munitions, 8, Northumberland Avenue, London, W.C.2. The fact that turpentine or turpentine substitute may be required solely for the execution of a certified Class "A" or Class "B" contract does not of itself constitute permission to use the material. The facts should be clearly stated in an application for a licence, which would presumably be granted if a good case were made out for its urgent necessity.

Wood Preservatives.

Most wood preservatives come within the scope of the "Tar Oils" Order (February 1, 1918), which provides that no person may purchase or take delivery of tar oil in quantities exceeding five gallons in all in any one calendar month. Moreover, no person may use more than five gallons per month without a licence. Applications for licences should be made to The Controller, Mineral Oil Production Department, Ministry of Munitions, 8, Northumberland Avenue, London, W.C.2. The fact that wood preservatives may be required solely for the execution of a certified Class "A" or Class "B" contract does not of itself constitute permission to use the material. The facts should be clearly stated in an application for a licence, which would presumably be granted if a good case were made out for its urgent necessity.

Zinc White Paints and Zinc Compounds.

The Spelter Order dated March 23, 1917, has now been extended (as from January 22, 1918) to cover, among other articles, "zinc oxide, zinc sulphide (or lithopone), whether dry, in oil, or prepared for use, and zinc compounds." The following note has been issued by the Ministry of Munitions: "Zinc oxide and lithopone can only be used in future for Class 'A' or 'P5' orders or for urgent repairs up to 1 cwt. of paint." In this connection it may be as well to define Class "A" and "P5" orders. Class "A" is sub-divided into four grades of priority: P1, most urgent war work; P2, very urgent war work; P3, urgent war work; P4, war work. Class "B" is headed by "P5," which takes precedence over all other Class "B" work. So far as zinc paints are concerned, it is clear that not more than 1 cwt. of paint may be supplied against an assurance in writing that it is required for urgent and necessary repairs and renewals, and the address of the work should be given.

Ultimate Restrictions.

It must, however, be remembered that the Linseed Oil Order will automatically restrict the sale of zinc paints, for no linseed oil may be used in their manufacture, even for urgent repairs and renewals, but only for the most urgent war work. Hence, as soon as existing stocks of boiled oil and varnish are exhausted, unless other reliable substitutes for linseed oil meanwhile become available, no more zinc—or, indeed, any other—paints will be procurable.

Equivalents.—On an average about six gallons of enamel go to the cwt. Obviously the cwt. may be made up with any suitable zinc paint or enamel.

It is not the intention of the Ministry of Munitions to give facilities for securing 1 cwt. of zinc paints for stock, and it is expected that orders sent in will represent accurately the actual requirements for the work of which the addresses are given.

Purchase Without Licence.

So far as Messrs. Line interpret the respective Orders, the following appears to be the situation as regards the purchase of paint materials apart from any licence:

(1) White lead, in oil, ready mixed, and paints or colours containing lead.—None.

(2) Raw linseed oil.—None.

(3) Pale and double-boiled oil.—As long as existing stocks last.

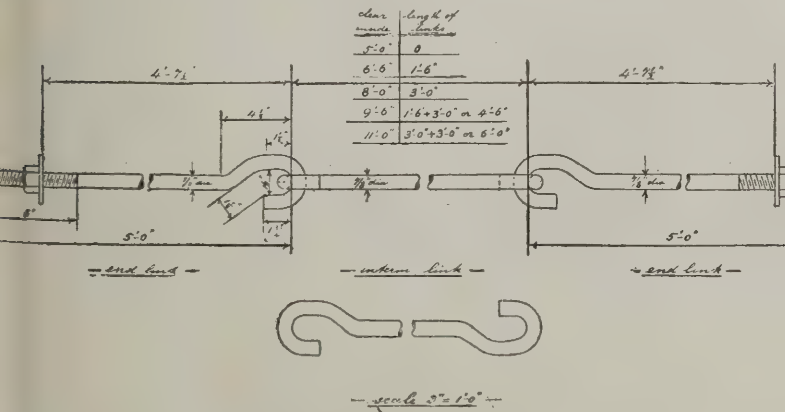
(4) Turpentine.—Five gallons per month.

(5) Turpentine substitute.—Five gallons per month.

(6) Wood preservatives.—Five gallons per month.

(7) Zinc white, in oil, ready mixed, and paints or colours containing zinc.—Up to 1 cwt. per job necessitating its use for urgent and necessary repairs and renewals.

Messrs. Line give useful lists of the more usual painting materials containing lead and of those which contain neither lead nor zinc.



DETAIL OF ATTACHMENT IN REINFORCED CONCRETE AIR-RAID SHELTER.

AWARDS IN THE NATIONAL COTTAGE COMPETITION (HOME COUNTIES AREA).

CLASS A.

First, 173, Courtenay M. Crickmer; second, 74, F. C. M. Barrett; honourable mention, 334, Wilson, Newton, and Round; honourable mention, 116, C. O. Nelson; honourable mention, 200, C. Wontner Smith.

CLASS B.

First, 25, Alfred Cox; second, 173, Courtney M. Crickmer; honourable mention, 334, Wilson, Newton, and Round; honourable mention, 200, C. Wontner Smith; honourable mention, 74, F. C. W. Barrett; honourable mention, 59, John C. S. Soutar.

CLASS C.

First, 173, Courtenay M. Crickmer; second, 200, C. Wontner Smith; honourable mention, 326, Roland Welch; honourable mention, 334, Wilson, Newton, and Round; honourable mention, 170, H. R. Gardner.

CLASS D.

First, 242, John A. W. Grant; second, 189, W. R. Mosley; honourable mention, 200, C. Wontner Smith.

All the designs in this competition are now open to public inspection at the R.I.B.A. Rooms, 9, Conduit Street, London, W.1.

R.I.B.A.

The Associateship: Special War Regulations.

On the recommendation of the Board of Architectural Education the Council have granted the following temporary concessions to Students R.I.B.A. and others seeking to qualify for Associateship.

A.—Special War Exemption.

A student of the R.I.B.A. who has attained the age of at least twenty-one years, and

(1) Has passed the Intermediate Examination of the R.I.B.A., or has passed through a full course at any of the schools recognised by the R.I.B.A. and has received a certificate which gives exemption from that examination, and

(2) Has served in some full-time employment in His Majesty's Forces during the war for a period of *not less than two years*; or has relinquished his commission or been discharged from service after less than that period owing to wounds or other disability arising from or in such service,

shall be held to be qualified for candidature as Associate R.I.B.A., as if he had already passed the Final Examination.

A Student R.I.B.A. must make an application on an official form, accompanied by a remittance of four guineas, which will be returned should his application be refused.

He must also send with his application particulars of his service in His Majesty's Forces, and a certificate from a member of the Royal Institute, or other architect of recognised position, that the student is a proper person to be admitted to the Associateship.

N.B.—This exemption does not apply to candidates who under the previous concession of November, 1914, have been registered as students without having either passed the Intermediate Examination or obtained the certificate mentioned under A (1).

B.—Special War Examination.

This examination will be open for three years after the declaration of peace to candidates who have attained the age of at least 21 years and are not eligible for or desirous of availing themselves of, the Special War Exemption, and have served in some full-time employment in His Majesty's Forces during the war for a period of *not less than two years*, or have relinquished their commissions or been discharged from service after less than that period owing to wounds or other disability arising from or in such service.

The examination will be held by the R.I.B.A. twice a year in the months of June and December, or as may be determined from time to time and announced in the official publications of the Royal Institute.

Candidates desirous of entering for this examination and qualifying for candidature as Associate R.I.B.A. must apply on an official form to be obtained from the Institute.

This form must be accompanied by:

(1) A remittance of six guineas, which will be returned should the application be refused.

(2) Particulars of service in His Majesty's Forces.

(3) A certificate from a member of the Royal Institute, or other architect of recognised position that the applicant is a proper person to be admitted to this examination.

He must also send either with his application form, or before, two testimonies of study (problems in design) or one testimony of study and one thesis.

The thesis must be of a practical character, as described under the heading in the "Kalendar," p. 418, "Science as Applied to Building."

The subject selected for the thesis is to be notified for the approval of the Board two months before the date of the examination, and the thesis itself is to be submitted four weeks before that date.

If the testimonies of study have not previously been submitted to and approved by the Board they must be sent in at least four weeks before the date of the examination for the Board's approval.

All testimonies of study submitted for this Special War Examination must be drawn and coloured as working drawings, with, as far as is possible, all construction shown.

The conditions regulating the character of the thesis and the designs submitted as testimonies of study will be insisted upon in view of the omission of the papers on construction, materials, hygiene, etc., from this examination.

Subject to the above conditions, the designs may be of

(1) Problems set by the Board.

(2) Subjects set in a recognised school.

(3) Subjects set in the Royal Academy School, provided that the same are approved and initialled by the visitor.

Candidates who have been awarded the Soane Medallion or the Tite Prize, or who have received a Certificate of Honourable Mention in either of the competitions, may submit in place of the aforesaid testimonies of study their Soane or Tite designs, and receive marks for same.

The examination will consist of a design for a building of moderate dimensions, or a portion of a more important edifice to be made from particulars given. The drawings to comprise plans, elevations,
and sections generally to a scale of
to the foot, details of construction
hygiene to a large scale, with a s
perspective. The subject will be com
cated in general terms to the cand
some days before the examination.

The examination will extend over
days and there will be subsequentl
oral examination on the design an
construction and the testimonies of s
including the thesis, if any.

The attention of candidates is cal
the fact that at the oral examination
must be prepared to show good know
of materials and of construction, as w
of hygiene (as applied to buildings) a
the general practice of an architect.

The Board of Architectural Educ
reserve the right to refuse to a cand
who fails in this Special War Examin
permission to enter for it a second ti

The general conditions published i
"Kalendar" relating to essays, carria
drawings, entrance fee, etc., apply t
examination.

Building Licences.

The authority to make orders regul
or restricting the carrying on of bui
and construction work under Defen
the Realm Regulation 8E has been t
ferred by Order in Council from
Minister of Munitions to the Minist
National Service. All applications
licences under Order XIV, of July
1916, should in future be addressed t
Secretary (L), Ministry of Nat
Service, S.W.1.

Transactions.

At a business general meeting
Monday, March 4, the minutes of the
ing held February 4, 1918, were tak
read and signed as correct.

The Hon. Secretary announced
decease of Sir John Wolfe Barry,
Associate, elected in 1877, and Fr
Bond, Hon. Associate, elected in 1896
it was resolved that the regrets of the
tute for the loss of these distingu
members be entered on the minutes,
that a message of the Institute's sym
and condolence be forwarded to their
relatives.

The decease was also announce
Frederick Montague Gratton, el
Associate in 1881, Fellow in 1893.
placed on the list of Retired Fello
1912; Lieut.-Colonel George A
Hamilton Dickson, M.V.O., till
Diocesan Surveyor of Pretoria,
Africa, elected Associate in 1888
Fellow in 1915; George Scott
Licentiate, and John Clarkson, el
Associate in 1869 and Fellow in 1889.

The following candidates for mem
ship were elected by show of hands
Bye-law 10:

AS FELLOWS (4).

Greenslade, Sydney Kyffin (Pugin Stu
Grissell Medallist, Godwin Bu
Associate).
Harrison, Edward Lewis (Licentiate).
Jones, Gerald E. (Licentiate).
Stedman, Arthur J. (Licentiate).

AS ASSOCIATE.

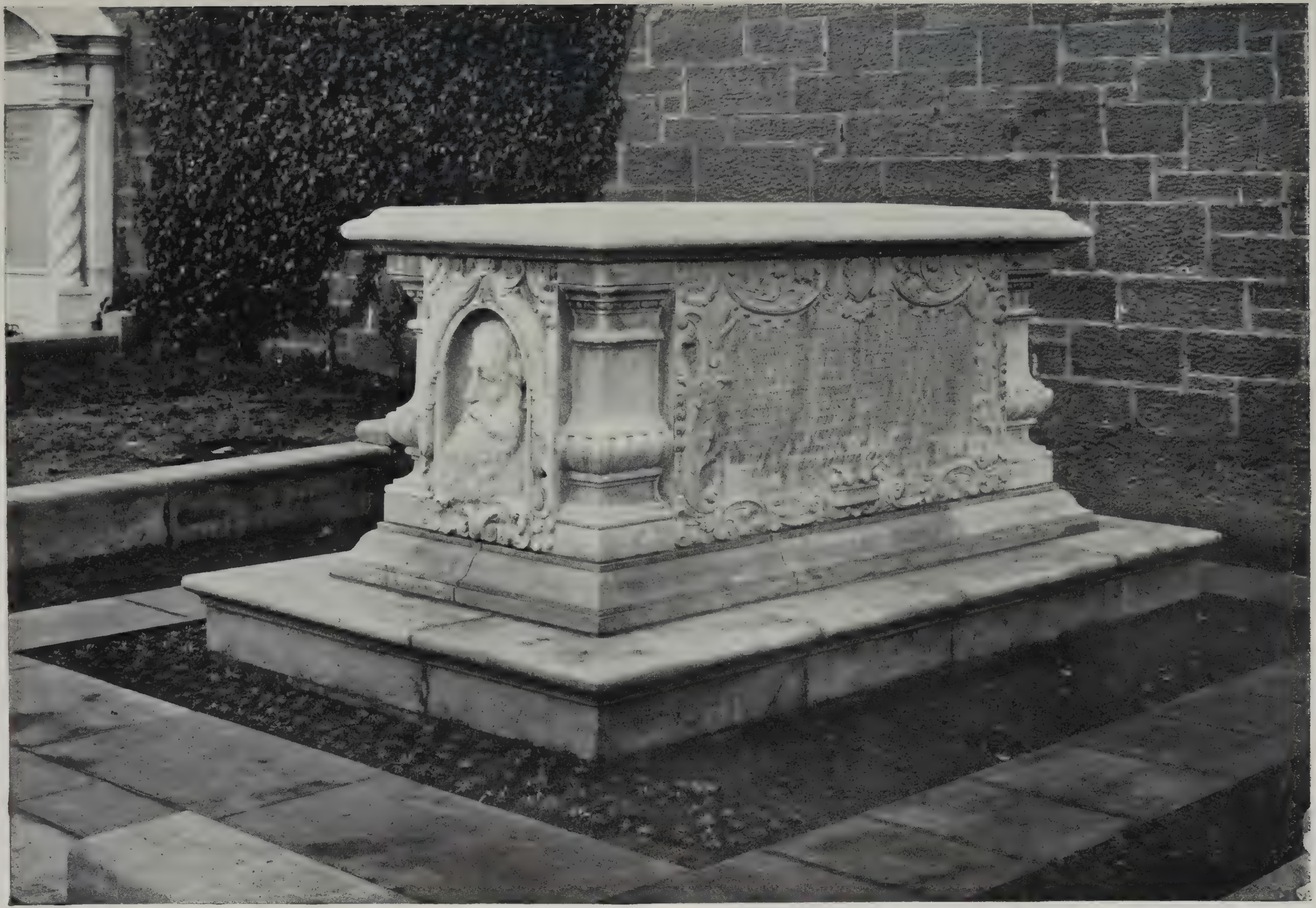
Cameron, Kenneth, 2nd Lieut., R.E.

AS HON. ASSOCIATE.

Leslie, Francis Seymour, Colonel
retired.

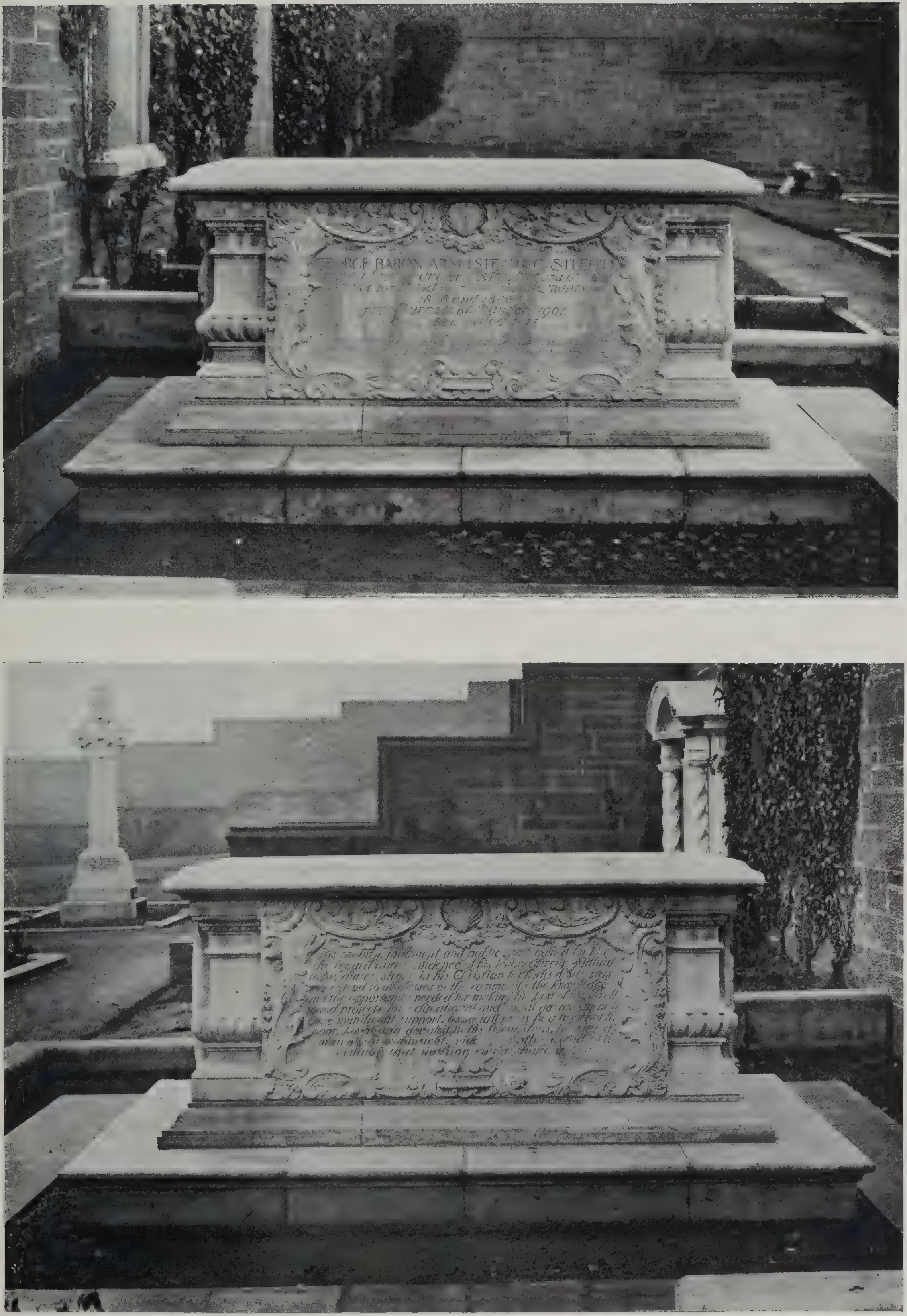
Annual Elections Not to be Hel

The President announced that in
to save labour and expense the Co
proposed, subject to the sanction o
Privy Council, not to hold the annual
tions this year.



MONUMENTS. XXXII.—MEMORIAL TOMBSTONE TO THE LATE LORD ARMITSTEAD, WESTERN CEMETERY, DUNDEE.

J. DONALD MILLS, F.R.I.B.A., ARCHITECT. THOMAS BEATTIE, SCULPTOR.



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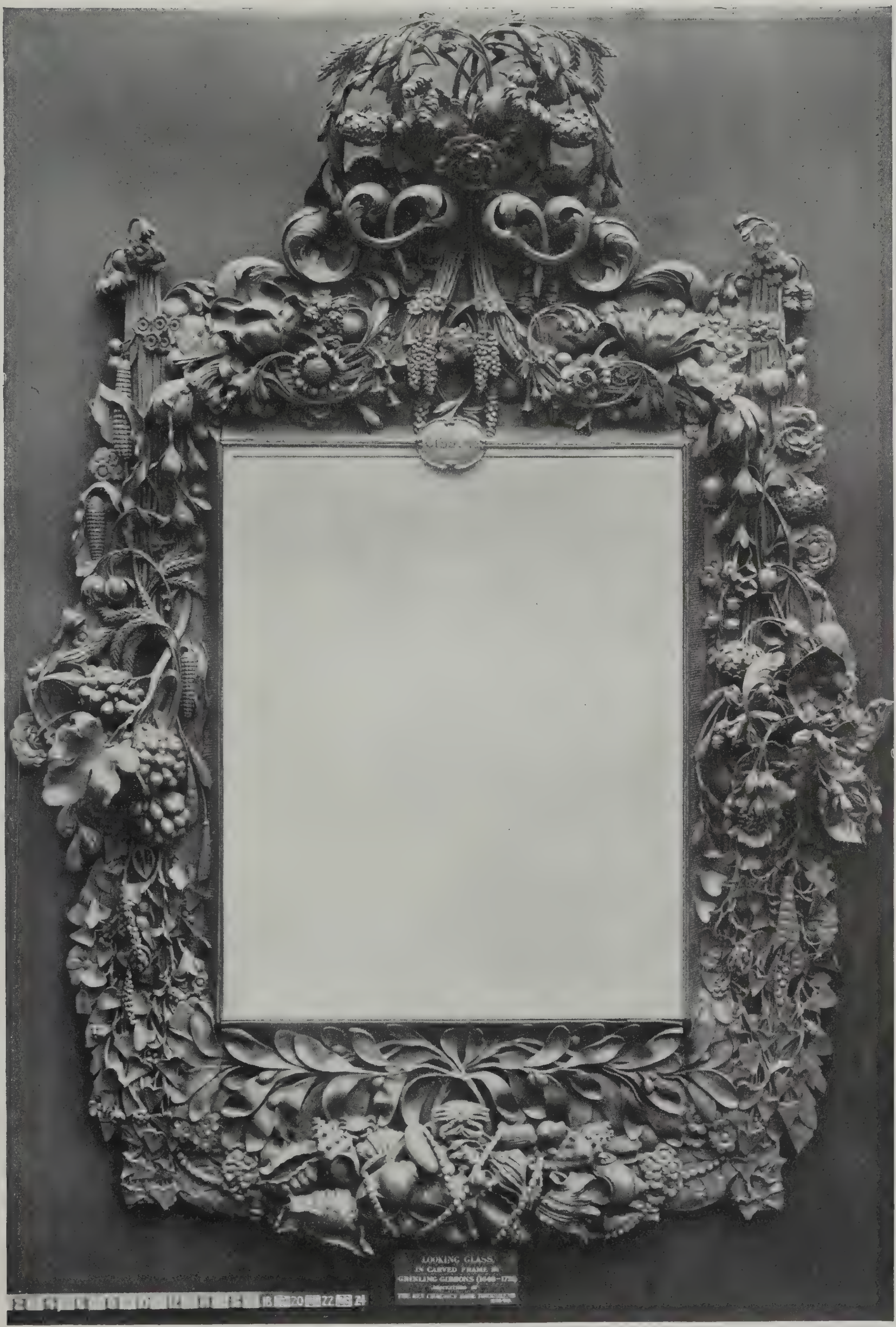

DETAILS OF CRAFTSMANSHIP (SERIES III.). XXI.—MIRROR FRAME IN CARVED LIMEWOOD, ATTRIBUTED TO GRINLING GIBBONS.

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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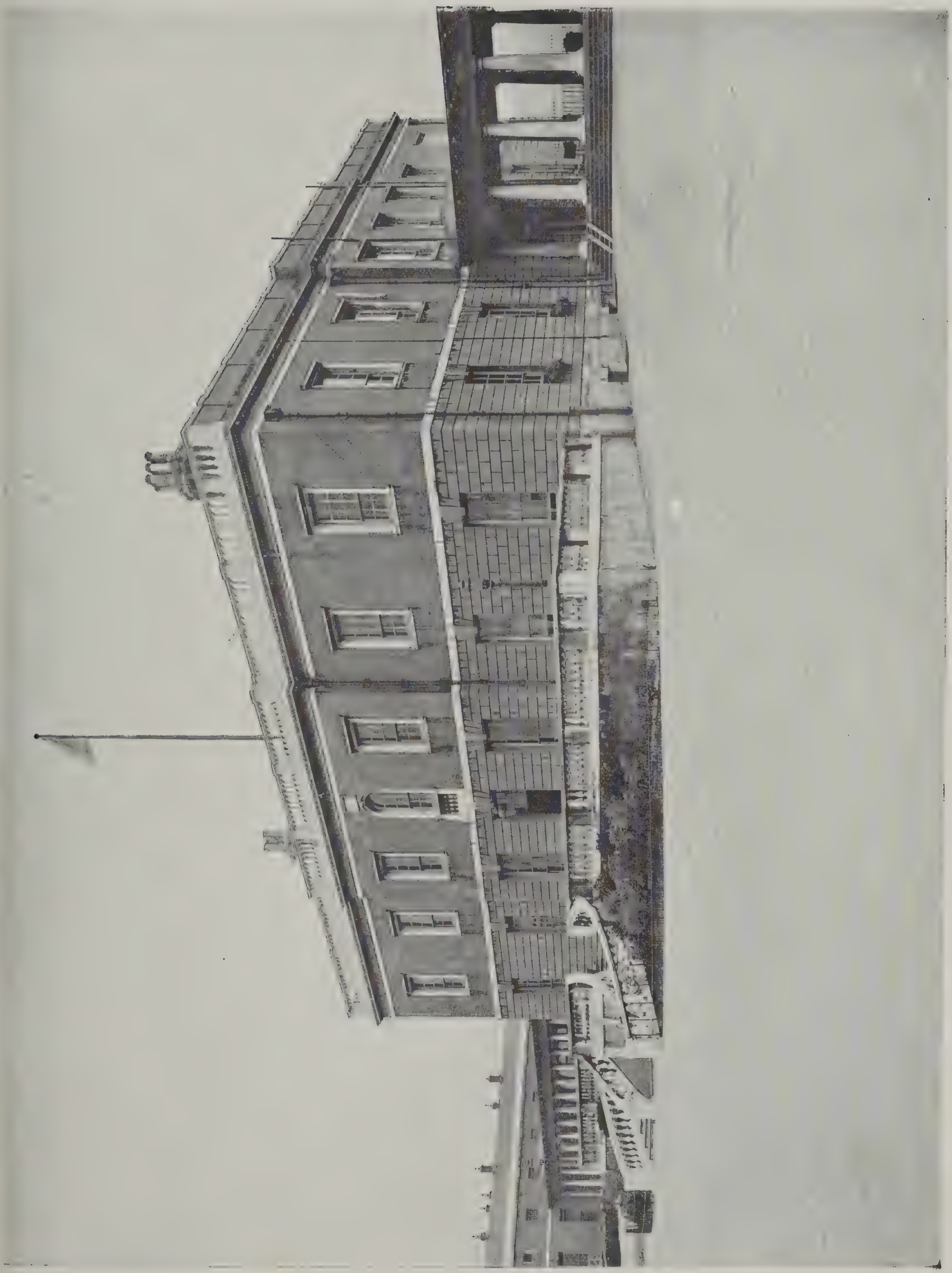
UNIVERSITY OF ILLINOIS



MONUMENTAL ARCHITECTURE (SERIES II). XLIII.—THE QUEEN'S HOUSE, GREENWICH HOSPITAL.

INIGO JONES, ARCHITECT.

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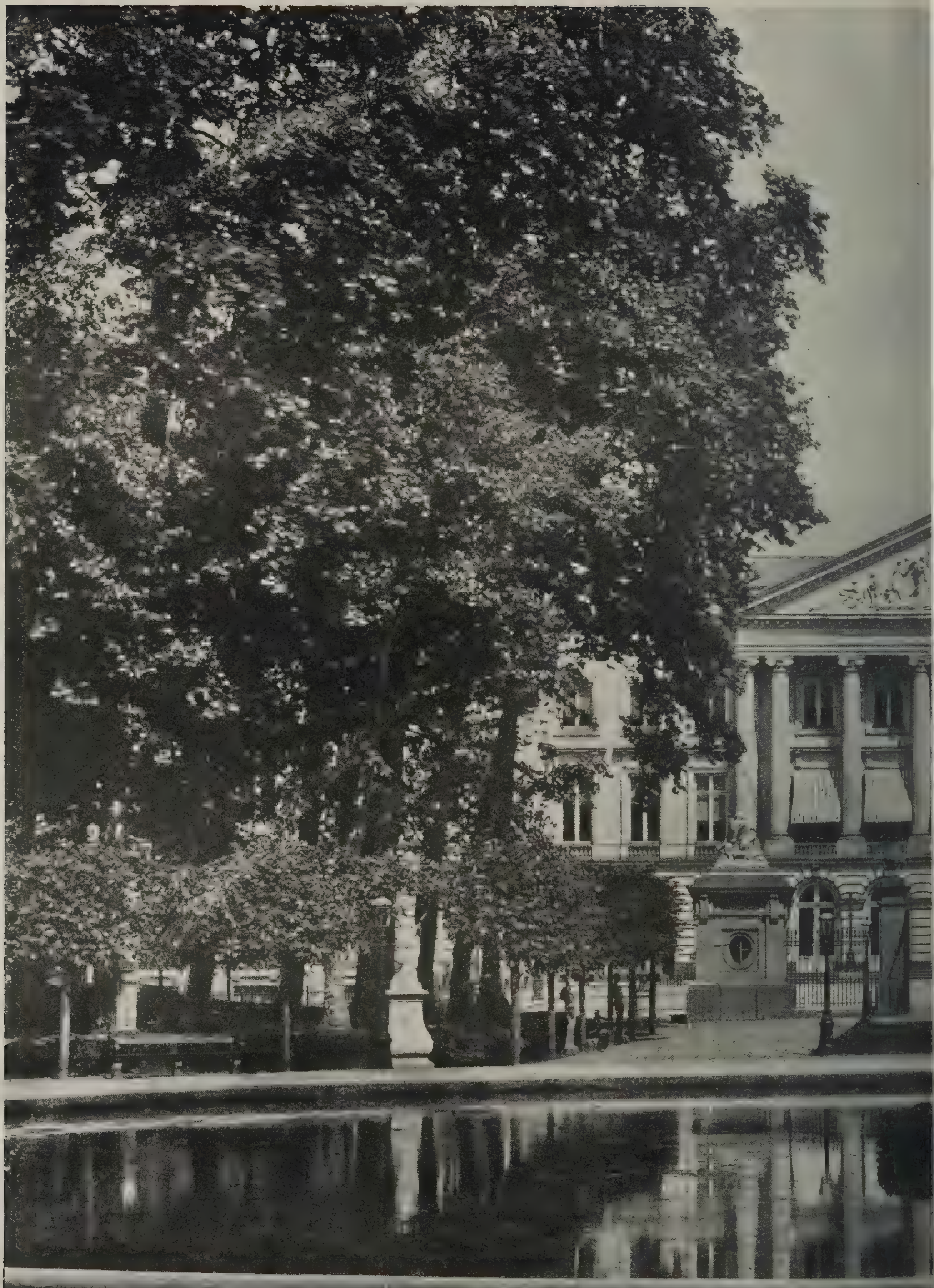
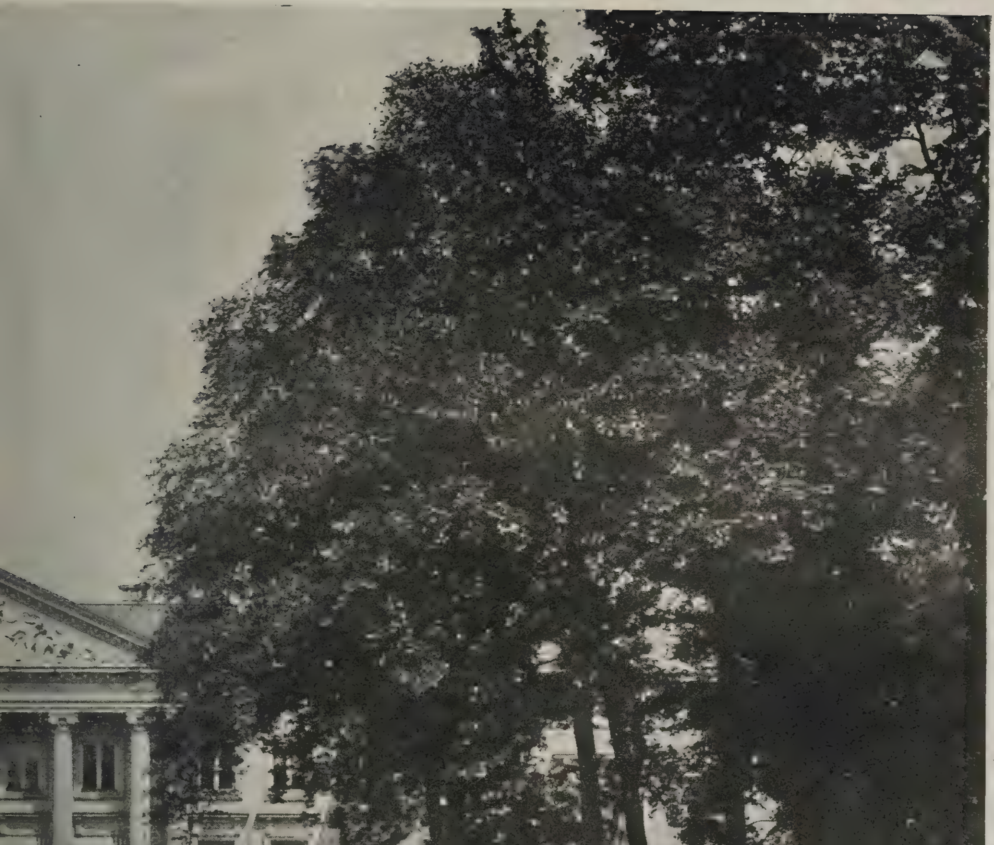


MONUMENTAL ARCHITECTURE (SERIES II.). XLIV.—THE PALAIS DE

VAN DER STRA



ION, BRUSSELS, SEEN ACROSS THE ROUND POND IN THE PARC.

ARCHITECT.

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

APRIL 3, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1213.

NATIONAL PAPER ECONOMY.

wing to the very necessary Government restric-
s on paper supplies, all elements of waste must
igorously excluded. Our readers, we are sure,
gladly assist in promoting this object, which is
tem in national economy. They can co-operate
us effectually in either of two ways—(1) By
ing a direct subscription for this Journal, or (2)
lacing with a newsagent an order for its regular
very. Casual purchases—now here, now there—
te a serious discrepancy between supply and
and, and cause wastage of effort and materials.

IOULD architects advertise? According to our
contemporary the "American Architect," the
Illinois Chapter of the American Institute
going to raise the question at the forth-
ing convention of the Institute, to be held
hiladelphia this month, when, no doubt, the
ter will be very thoroughly debated. So
as can be gathered from our contemporary's
ing article on the subject, the American Institute
en more strict than our own on this "question of
s," as it is called; for it appears that not only are
itects forbidden to "sign" their buildings, but
at one time an attempt was made "to characterise
dvertising any illustrations of the architect's work
e architectural Press." Naturally. this attempt
d ignominiously, and its revelation that extreme
acy may amount to disease caused a recoil of
h the effects will become more apparent at the
ing at Philadelphia. Our contemporary does not
natise on the matter, but contents itself with put-
a series of Socratic questions, of which these two
he most poignant: (1) "If an architect has some
ially developed service to offer the public, is there
reason why he should not let the fact be known, so
as he pays for his publicity just as any other per-
does?" (2) "Is there any reason why architects
ot be broad- and fair-minded in their dealings,
ing abreast of the times instead of remaining in
rut of a custom which might, perhaps, be more
ured in the breach than in the observance?" We
er like that ancient tag about breach and obser-
e, because our contemporary uses it in the right
espearian sense—a feat seldom achieved in this
try. At the present moment we do not care to
ss this delicate question of advertising. We
d rather suggest it as a good subject—which the
ricans have made topical—for debate at a future
ormal Conference" at the Royal Institute. Who
be bold enough to open the debate with an
native proposition?

* * * *

r. E. Lloyd Owen, M.O.H., makes, in a letter to
Daily News," a good point or two on the parlour
tion. He says, truly enough, that in the absence
parlour the living-room is often misappropriated
parlour, the smaller and less healthy scullery being
to live in. He makes the further remark that a
ur is not only useful in itself, but is really indis-
able for the older children to do their home-lessons
nd that this will be a matter of added importance
r Mr. Fisher's education scheme. We are entirely
reement with Dr. Owen, whose reference to the
f the parlour as a study we can confirm from personal observation. It is not sufficiently recognised that, ever since Mr. Applegarth, the then secretary of the carpenters' and joiners' trade union, helped Mr. W. E. Forster to pass the Education Act of 1870, increasingly large numbers of working-class parents have become keenly interested in the educational advancement of their children, whom they encourage to study hard out of school hours. It should be remembered, also, that the majority of the large army of elementary teachers—an army that Mr. Fisher's Act will greatly augment—come from working-class homes. Many of them gain university degrees, to obtain which they must put in a vast amount of hard reading, which cannot be conveniently done in a living-room amidst a swarm of noisy young brothers and sisters, with the added clatter of the busy mother's sewing-machine; and so our budding London graduate takes refuge in the parlour; or, where there is no parlour, in a bedroom. We do not want our new army of elementary teachers to study in their bedrooms; nor other students to pursue their technical training under the disadvantages that attended a certain young engineer who was working towards a Whitworth scholarship which he afterwards obtained. He did his drawing in the kitchen on his mother's pastry-board. By all means give the artisan a parlour. The old nursery rhyme, "C is for cobbler, who lives in his stall, Which serves him for parlour and kitchen and all," is a hundred years out of date.

* * * *

We have received from Mr. Edward M. Gibbs, F.R.I.B.A., J.P., the pamphlet to which he referred in a letter which was printed in last week's issue. Mr. Gibbs has gone very thoroughly into the whole question of finance, and his pamphlet is a rather formidable document. Exhaustive inquiry has led him to form the conclusions summarised in his letter, in which he suggests the imposition of house-duty on houses under £20 a year, chargeable to the owner and rechargeable to the tenant. It is estimated that this duty would amount to about a penny a week. Then "there would be no loss to the Exchequer or to the local authorities, no burden on taxpayer or ratepayer; and the whole finance would be effected by a slight increase of rent balanced by a slight adjustment of wages—an equitable and economic solution of the problem." Thus the tenant is to be afforded the moral satisfaction of paying back the State subsidy, and the very material advantage of keeping his rent down. Mr. Gibbs estimates that "a house-duty of fivepence in the pound would produce the necessary interest and sinking fund, . . . and that this would be under three-halfpence per week per house, by payment of which the tenant would be relieved from a possible three shillings per week." Then he adds a phrase that we wish he had omitted—"that is, three shillings for three-halfpence." It has a "ninepence-for-fourpence" pungency of sevenfold intensity, and does an injustice to Mr. Gibbs's painstaking and ingenious calculations. These, of course, being necessarily based largely on assumptions, probabilities, percentages, and the like actuarial data, give no very solid foundation for any structure that might be reared upon them. Nevertheless, Mr. Gibbs, being highly skilled in the handling of such matters, is not likely to have erred very seriously in any vital item of his estimates; and, assuming his figures are approximately correct, it only remains to be said that the conclusions he draws from them are clearly legitimate. If he has indeed solved the housing problem by indicating untapped sources of revenue (he suggests, also, a new scheme of income-tax incidence), he will "have done the State some service," and the Treasury may with a light heart disburse the thirty million pounds that rumour credits them with allotting to housing—may even double it without qualms; for what working-class tenant would begrudge threepence for three shillings, especially if he could make his employer smart for it? It really seems too easy and simple a way for the Government to get back its seventy-five per cent. of what might be lost in the first seven years; and what the municipality make over and above the other twenty-five per cent. could go to the relief of the rates. This, however, is not Mr. Gibbs's idea, but our own extension of it.

* * * *

Thakeham Rural Council has, by a narrow majority, decided to adopt building by-laws! For years, it is said, the surveyor has advocated this desperate step, but hitherto has been met with a nay-word. At length his perseverance is rewarded, perhaps for the same reason that operated in the leading case of the importunate widow. He is to be congratulated no less on his persistency than on its success. "It's dogged as does it." If there remain in the backwoods any other by-lawless districts, or any other surveyors who feel in their bones the anomaly of being, as it were, muzzled watchdogs, who may bark but cannot bite, they may now take heart of grace from the example of Thakeham. Now is the time to adopt by-laws; architects and builders having ample leisure to study them. If they happen to be a generation or so out of date, that is the penalty of refusing to adopt them (as it is said that Thakeham refused) twenty years ago, when they were younger and fresher, and had not lost step with the movement. It is easy to believe that, in the near future, the adoption of by-laws will be compulsory everywhere, and it will be a proud day for Thakeham when it is able to boast that it joined up before conscription.

THE PLATES.

Midland Agricultural and Dairy College, Sutton Bonnington.

THE buildings illustrated are the first portions of a large scheme which will ultimately supersede the existing college situated on Lord Belper's estate at Kingston, about two miles away. This institution has been erected by the Board of Governors, consisting of representatives from the four County Councils of Derbyshire, Nottinghamshire, Leicestershire, and the Lindsay division of Lincoln. The buildings consist of a college block, administrative buildings in connection therewith, a workshop block, and a detached hostel for fifty-five men students. The materials used for facing are local bricks with a rough texture in slightly varying colours. Ancaster stone dressings are sparingly used. The roofs are covered with grey Burlington slates laid in diminished courses. The general contractors for the main buildings are Messrs. Thos. Barlow and Co., Nottingham. The water supply is obtained from the Derwent Valley water-main, about a mile distant. The drainage is delivered into the Sutton Bonnington system. The total cost of the buildings now carried out is about £30,000, and the whole of the works have been executed from the designs and under the superintendence of Messrs. Pick, Everard, and Keay, architects, of Leicester.

Santa Maria della Salute, Venice.

From the standpoint of art, one of the richest regions in the world is to-day at the tender mercy of the enemy. There appears to be good reason to believe, from the exhibition to which the world has, during the past few years, been favoured, by the enlightened a cultured German people, that those art treasures a architectural monuments remaining in the beaut City of the Sea, and in other cities of Northern Ita after the great war has spent itself, will remain only the result of accident, not design. It appears v evident that, underlying the apparent lust for destr tion upon the part of the Hun, there exists a sett determination to remove for ever as many examples the genius of the great masters, in other countries. is possible by the aid of the scientific agencies of w S. Maria della Salute stands upon a triangular-shap island near the end of the Grand Canal—the m wonderful highway in the world—at its juncture w the Canale della Giudecca. This familiar and tr remarkable church, rising majestically at the portal the city of the lagoons, is probably the finest work the late period in Venice. Architecturally, for size, it has few, if any, rivals—a noble and picturesc pile, splendidly situated, and wonderfully effect from a distance, whether viewed from the west on Grand Canal, from the east entering the Canale di S Marco, or (the most effective of all) from the terr at the corner of the Rio dei Baccaroli, at the ri bank of the Grand Canal, as illustrated. The f flight of broad steps leading from the waters of canal adds dignity and beauty to the proportions this striking pyramidical composition. Its princi dome springs from an octagonal drum pierced sixteen semicircular-headed windows, and buttres by bold brackets of no constructive value, but exce ingly effective. The principal dome has behind it, the south side of the church above the choir, a seco dome of smaller dimensions, flanked by square t campanili. This church was designed by Baldass Longhena, a pupil of Palladio, in commemoration the cessation, in 1630, of the great epidemic of plague, when the city of Venice lost 46,000 of inhabitants, and in the lagoons 94,000 pers perished. The Republic decided after the pestile had done its work to erect a church to an influen plague-saint, as a votive offering dedicated by th who recovered or escaped from the disease, and 1631 the church of Santa Maria della Salute was co menced. It was completed in 1682. There w many churches erected in commemoration of various visitations of plagues, but Santa Maria the youngest of the plague churches. This ha of building churches in the Middle Ages was typ of the character of the people of those days. Tl looked upon the attack by some great pestilence a Divine punishment; hence, when the scourge pas by, churches were built dedicated to some plag saint, Our Lady of Health, or of Delivera (Madonna della Salute), or some other. The en coast of the Adriatic, in consequence thereof, is ple fully dotted with these commemoration churches. T interior of this church is octagonal in plan in central portion, and is surrounded by an ambulat and flanked by six side-chapels hexagonal in sha

CHARLES T. RUTHEN, F.R.I.B.

A Venetian Lantern.

This lantern is of carved wood, and dates fr about 1570. The framework is ornamented with st or cartouche work, cupids, satyrs, etc., in full rel The figures are painted in flesh tints, and the rest the work is gilt. Height 7 ft., diameter 2 ft. 10 in.

The Arc de Triomphe, Paris.

The Arc de Triomphe, the mightiest monument the Napoleonic era, was designed in 1805 by Chalg It was begun in 1806, but was not completed u 1837. During that period three other architects w concerned with the work—Goust, Huyot, and Blo The dimensions of the monument are approximat 150 ft. by 75 ft. by 160 ft. high. The cost 9,303,505 francs.

HERE AND THERE.

BLAKE boom had been long anticipated. Our kinsmen and allies in the United States had, for a quarter of a century or more, taken a keen erest in the work of this strange genius; and, sooner ater, American interest in works of art finds expres- i in high prices at the sale-rooms. Hence the raordinary sums paid for Blake lots at a recent sale ld have surprised nobody who, being aware of the ierican enthusiasm for Blake, knew also that an ierican collector would scorn to let expense inter- e with his hobby.

* * * *

ossibly Blake's eccentricity appealed more strongly the Americans than to us. They rather like a ank." We, more conventionally inclined, mistrust entricity, and are rather disposed to penalise it. until Ruskin, Rossetti, and Swinburne pronounced ke's eulogy (Ruskin thought Blake's management ight superior to Rembrandt's) was it fully recog- ed in this country that our fathers had neglected despised a genius of the first rank; and it is orted that at the recent sales there were old dealers confessed themselves staggered at seeing hun- ds of pounds paid for lots that, a few years ago, ild hardly have commanded as many pence. christ's life of Blake, published in 1863, did ample ice to the poet-painter's splendid genius and fine racter, yet failed to correct the public impression iim as a half-witted person, whose work had in it sound core or vital principle. There are still those regard Blake as an inspired lunatic; and the most vincing argument that this view is out of date is value set on his work in the sale-room. To the listine mind, "a thing of beauty" is esteemed com- isurately to "its price in the market."

* * * *

n his own day Blake had a few ardent admirers— xman and Linnell, for instance. Henry Fuseli for him several important commissions from the lishers, who, in most instances, made but a poor irn on their outlay. Linnell gave him employment iis old age, and thus saved him from falling into ect poverty. Books illustrated by Blake did not well, except in the instance of Blair's "Grave," in ch, however, the illustrations designed by Blake e not engraved by himself, but by Schiavonetti, ose bold and free renderings were more to the lic taste than Blake's less commonplace method of raving. Yet, until within ten years of his death, in 7, at the age of seventy, he was largely engaged in raving the designs of other men—for example, ty-seven plates for Flaxman's Hesiod—but he ertheless worked industriously in pursuit of his to be a "compleat artist." He must needs do rything himself—write the poem, design and rave the illustrations, bind and publish the book.

* * * *

et he could not say, "Alone I did it," for he had a st devoted helper in his wife, who had been oline Boucher, and whom he had married at tersea in 1782, when he was in his twenty-fifth r. She was then wholly illiterate—could not so ch as sign her name to the marriage register; but ke taught her to read and write, to print his ravings, and to colour them. When he opened his p (whether at Poland Street or at 3, Fountain irt, Strand) she was his saleswoman. Unlike most es wedded to geniuses, she had a profound belief in , and their married life, although unblessed with dren, was supremely happy. "Songs of Innocence," completed in 1789, and "Songs of Experience," in 1794, would be greatly prized even if they had far less intrinsic merit, because they were so entirely the work of a man and his wife.

* * * *

Gilchrist tells us all about it: "The verse was written and the designs and marginal embellishments outlined on the copper with an impervious liquid, probably the ordinary stopping-out varnish of engravers. Then all the white parts or lights—the remainder of the plate, that is—were eaten away with aquafortis, or other acid, so that the outline of letter and design was left prominent, as in stereotype. From these plates he printed off in any tint, yellow, brown, blue, required to be the prevailing or ground-colour in his fac-similes; red he used for the letterpress. The page was then coloured by hand in imitation of the original drawing, with more or less variety of detail in the local hues. He ground and mixed his water-colours himself. The colours he used were few and simple: indigo, cobalt, gamboge, vermilion, Frankfort black freely, ultramarine rarely, chromes not at all. These he applied with a camel's-hair brush, not with a sable, which he disliked. He taught Mrs. Blake to take off the impressions with care and delicacy, which such plates signally needed, and also to help in tinting them from his drawings with right artistic feeling; in all which tasks she, to her honour, delighted. The size of the plate was small, for the sake of economising copper—something under five inches by three. They were done up in boards by Mrs. Blake's hand, forming a small octavo; so that the poet and his wife did everything in making the book—writing, designing, printing, engraving—everything excepting manufacturing the paper; the very ink, or colour rather, they did make. Never before, surely, was a man so literally the author of his own book."

* * * *

A few weeks ago, in dealing with a portrait by Basire, I mentioned that Blake was apprenticed to him. He seems to have been a most kindly and considerate man; for, noticing that young Blake did not get on very well with his fellow-apprentices, he sent him to Westminster Abbey and to several of the City churches to make drawings for a book. Blake's designs to the Book of Job show in its fulness the fine imaginative force which gained him his unique position as a poetic artist. Abnormal development of the imaginative faculty carried with it certain penalties. It "bodied forth the forms of things unknown" in a very literal way, showing him cherubim sitting on tree-branches, his dearly loved dead brother Robert floating through the ceiling, and so on; and it so completely dominated his other faculties as to convince him that he was a chosen vessel of supernatural outpourings. But he showed no other sign of insanity; and I imagine that sanity does not always give way where, all the functions of the brain being healthy, one of them happens to be more vigorous than the rest. I could never subscribe to the sweeping general assumption of "the insanity of genius." Charles Lamb (in whom indeed great wit was "to madness near allied") thought Blake had written the finest appreciation of Chaucer he had ever seen. And, real insanity being, as a rule, progressive, it is significant that Blake's nearly latest effort in design, the illustrations to the Book of Job, are acknowledged to be "among the sanest and most admirable products of his genius." If he was insane, so are all the Symbolists, of whom he was the first and incomparably the best.

DIOGENES.

A NEGLECTED ASPECT OF THE LONDON HOUSING PROBLEM.—

BY G. LL. MORRIS AND H. W. PARNACOTT.

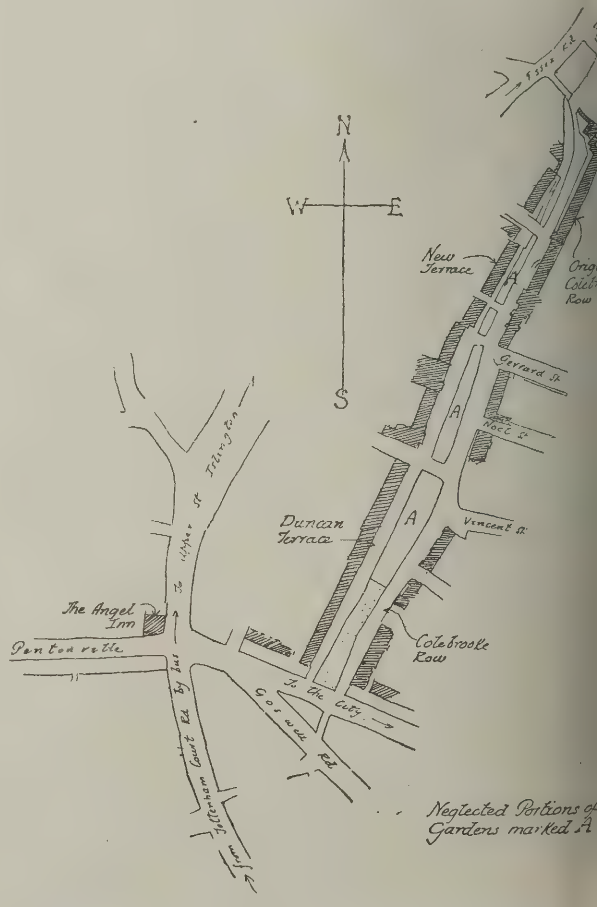
At the southern end of the Essex Road (see our issue for March 20), branching off from the main road, is Canonbury Lane, leading to Canonbury Square. It is known that the north side was built at the same time as the extension of Compton Terrace, probably between the years 1823 and 1830, the lane connecting the square with Upper Street being of older date. About this time all over the district the brickmakers and builders began to get busy, and it is more than probable that the bricks used in the building of the squares and streets off the western side of Upper Street were supplied from this source. At the southern side of the square is the house at one time occupied by Samuel Phelps, the tragedian, who for a score of years produced almost uninterruptedly Shakespeare's plays at Sadler's Wells Theatre—a noble record. The houses on this side are raised on a terrace, and, unlike those at Compton Terrace, have projecting porches, which appear to have been erected at the same time as the houses. At the rear of the eastern side of the square is Alwyne Villas Road, flanked with a small row of buildings called Canonbury Terrace, comprised of houses two stories only above the ground floor. These were built in 1824, and should be noted for their pleasing proportions.

Returning to the square, and turning down the Canonbury Road, in a south-easterly direction, we branch off to Canonbury Villas and Asteys Row on the south-eastern side. It is at this spot that the New River passes underground beneath the now enclosed space between Canonbury Villas and the houses flanking Asteys Row. Through this enclosed but neglected space from Canonbury Road to Pleasant Row the New River used to run, the foot passenger wending his way along the pathway by the east bank of the river at the side of Asteys Row until he reached Lower Street, now Essex Road. Many of the houses in the row appear to have been built early in the eighteenth century. The whole of this neighbourhood at the present time excites desire for a well-considered scheme of adaptation and conversion. In this wilderness of an ill-kept enclosure, only partly covered with grass, the trees which lined the western bank still break into bud every springtime for the benefit of the keeper who sits in the matchboarded sentry-box.

A flight of steps from the southern end of Asteys Row brings us into Essex Road; proceeding therefrom in a northerly direction towards Balls Pond Road is "Annetts" Crescent, situated just beyond the junction of Canonbury and Essex Road and on the eastern side of the latter. It is an interesting crescent of plaster-faced dwellings which would repay renovation, with a segmental-shaped green, much neglected, between the main road and the road next the houses. With careful and conservative repair, with a not very exorbitant expenditure on painting, and with constant attention to the adjacent grass plot, these houses would immediately give this portion of Essex Road such a singular appearance of distinction that the other residents would be unable to rest until the remainder of Essex Road had been brought up to the same standard of architectural design.

Returning in the direction of the Angel, where the road opens out into Islington Green, we find a narrow street on the left leading to the northern end of Colebrooke Row and Duncan Terrace Gardens. Between these the New River ran. The original Colebrooke Row was built in 1768, and belonged to the family whose name it bears. On the opposite side stands a well-proportioned line of dwelli
A tablet in the pediment over the middle house g
the date of their erection 1791 and the name
Terrace. The buildings, with the exceptio
carved heads forming the keystones to the entr
doors, are of the most simple character. The
tral block and end pavilions project slightly,
balconies at first floor level are varied, and betw
the centre and end pavilion are balconies to
window. On the pavilions and the central po
the balconies are continuous, with access from t
windows.

At the northern end of the terrace is the h
Charles Lamb occupied, but from his descripti
appears in his day to have been larger than it
the present time, and stood detached. Duncan
race now includes "New Terrace," and ext
from the south side of Lamb's house to the
Road. Originally Duncan Terrace consisted
single block next the City Road, and was conti
in the year 1834 as far as Camden Street, w
divided the terrace from New Terrace. As
Compton Terrace, a red brick church unfortuna
now forms the central block. Nevertheless, t
houses and those in Colebrooke Row, in spit
their much-neglected surroundings, still prese
brave and dignified appearance which mutila
and the covering-in of the river cannot altoge
dispel. Here is another opportunity for
obviously much-needed improvement. There i
open space, neglected and forlorn, which a p



SKETCH PLAN OF TERRACES AND GARDENS IN THE
ISLINGTON NEIGHBOURHOOD.

irited man of Islington might transform into a
autiful and attractive residential district.
though it is customary, owing to their conformity
style, to assume that monotony is the outstand-
g characteristic of these houses, it is astonishing
find how much variety there is in the subordinate
tails. In this district the doorways are treated
a number of ways, and the panelling of the doors
ries almost from house to house.

The entrance doors to the older houses towards
e City Road are full of variety and ornament, the
or-cases reeded and fluted, and the friezes across
e door-heads are of refined and dainty conven-
nal pattern. At this end some consideration has
en given to the central space, which is not with-
t some pretension to order and care, but at the
st it is a poor affair. The wide wriggling path
wn the middle terminates with an insignificant
ntain in the midst of a large gravel space. The
ntain gives the impression of having been manu-
ctured from the waste portions of marble and
ne in a tombstone cutter's yard, and the garden
ats are frankly commonplace, with poor lettering
enamelled iron plates attached to the back of the
ts. Before stepping into the City Road, notice
blocks of houses between Vincent Street and Noel
eet and between the latter and Gerrard Street;
se form the continuation of Colebrooke Row from
older portion built in 1768.

Passing up the City Road in a westerly direction
e reaches the Angel Inn, and from here we must
race part of the Upper Street, bearing to the left
d in a northerly direction through the back, or,
it is now called, the Liverpool Road. On the
stern side is Cloudesley Terrace, a striking row
houses divided in the middle by a short street
ding into Cloudesley Square. This terrace is set
well back from the road, with neglected-looking gardens in front and a broad pavement about 2 ft. 6 in. high above the road; the gardens are two steps more above the pavement, with an additional five steps to reach the ground-floor entrance. This arrangement gives a fine and dignified appearance to these dwellings.

CHARLES LAMB'S HOUSE IN DUNCAN TERRACE, ISLINGTON.

The adjacent streets are flanked with houses of similar design covering the estate bequeathed to the parish under the will of Richard Cloudesley.[*] The inner area of the square is nearly monopolised by Holy Trinity Church, erected from the design of the architect, Mr. Barry. Notwithstanding the associations which must have gathered around it, its present position is a mistake, and its removal would rectify a serious blunder. If we leave here by the street on the north side of this square, passing across Richmond Road, a short journey will bring us into Lonsdale Square. This is probably one of the most disastrous attempts to combine the formal arrangement of plans with the Gothic style. It is built in what has been described as Abbotsford Gothic.[†] Every house has a gable, every window is mullioned, and the very bell-handles are intended to recall the age of the Tudors. Here is likely enough the beginning of that hankering after mediæval forms which ruffled the early years of the nineteenth centry; and it would seem that Sir Walter Scott had as much to do with it as Sir Gilbert.

It is possible, too, that the architect or builder, after many years of respectable house-building of the early nineteenth-century type, fell a victim to the novels of Sir Walter Scott, and coming fresh from their perusal, and with the enthusiasm of a neophyte, erected this square or remodelled the then existing fronts. The latter is more than likely to be the correct assumption, the number of stories and the width of the houses corresponding to those in the streets leading to the square, which are still flanked with the early nineteenth-century houses. Returning through the street by which we entered the square to Richmond Road, we turn to the left and enter Gibson Square. Here each side is composed of central and end blocks, emphasised with flat plaster pilasters, and pediments over the middle portion; we shall also notice here a change in the treatment of the upper floor windows. The windows are enriched with plaster architraves, except in the middle block, which retain the plain jambs. The introduction of the plaster pilaster and architrave becomes general as we approach the middle of the century, although the plain jamb and bald treatment generally characteristic of the late eighteenth and early nineteenth centuries has been noted as late as 1843.[‡] Milner Square is immediately to the north of Gibson Square, Milner Street connecting them. In its way this is the most original square in North London, and some day when its merits are recognised, the garden rearranged, and the houses adapted, repaired, and renovated, it will be a residential district of which Islington may be proud. It was probably built after 1840, and is rather narrow in proportion to its width. It is entered in the middle of each end. The upper floors of the houses are set back behind the ground floor story, which is of brick plastered and painted; the upper stories are of brick, the first and second floor windows being linked together vertically by piers of the same material, relieved by slight projectings next the windows. Over these the frieze and cornice are carried round the whole square without a break. Above are the third-floor windows, with semi-circular heads and a shallow recess, with semi-circular arches between the windows and over the piers. The proportions are excellent, and, although the north-east corner is occupied as factory premises, the exterior next the square has not been tampered with to any great extent.

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[*] Arthur Machen, "Evening News," May 3, 1917.

[†] Page 345, "Walks Through Islington, 1835." By Thomas Cromwell.

[‡] Paulton Square, Stanley Terrace, and Paulton Terrace, off King's Road, Chelsea.

Leaving by the northern approach, we find ourselves in Barnsbury Street, and proceeding westward and crossing Liverpool Road to Thornhill Road, and then northward, we reach Barnsbury Square. Farther along Thornhill Road northward again is Arundale Square, most of which appears to have been built about 1860. In both the last-named squares the houses and the gardens are sadly in need of consideration; heaps of stones and earth mounds, broken railings, and a general air of neglect are common to both. In view of the condition of these gardens, the printed notice in Barnsbury Square nailed to a tree adjacent to one of the gateways is somewhat naïve. It runs as follows:—

"These gardens are for the exclusive use, for the pleasure and recreation of the owners and occupiers. In order to ensure the comfort of the users, football, cricket, or other dangerous games must not be played, and all persons must conduct themselves in an orderly manner. The Garden Committee hope that those having the right of using the garden will do their utmost to prevent any abuse of their privileges."

So far we have only taken the Londoner through some of the most interesting byways which record the architectural achievements of Islington during the late eighteenth and early nineteenth centuries, but before attempting the discovery of another district, which by this time we hope he will desire to undertake, he should visit Tibberton Square, off the eastern side of Upper Street, New North Road, and, further to the north-east, Newington Green, with which the name of De Foe is associated. Leaving Barnsbury Square by the street to the north-eastward, we pass into Upper Street, Islington, again. The Londoner can now board a tram or 'bus for Tottenham Court Road, the point from which we started.

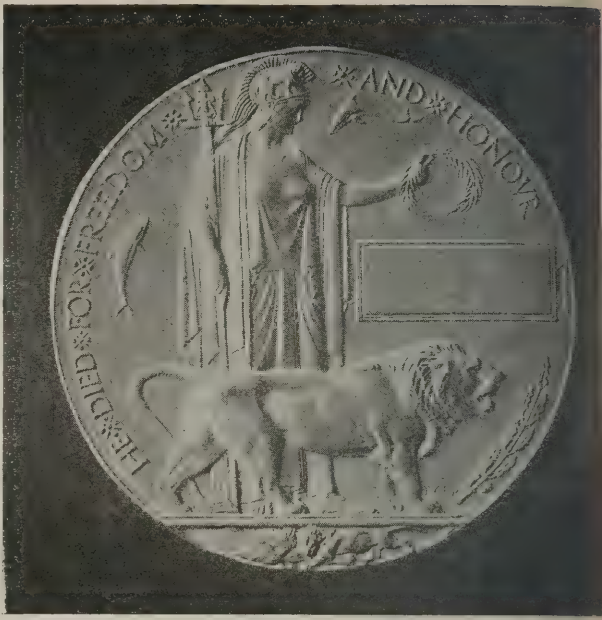
THE NATIONAL MEMORIAL PLAQUE COMPETITION.

IN July last the Government instituted a competition, confined to British-born subjects, for a memorial plaque to be presented to the next-of-kin of members of our naval and military forces who have fallen in the war. A sum of £500 was offered in prizes. The result of the competition, as recently announced, is as follows: The winner is Mr. E. Carter Preston, of Liverpool University, who presumably receives a prize of £250. Reproductions of his design and of his portrait are given on this page. Mr. Charles Wheeler was awarded second place for two designs, submitted under the motto "Moolie." He receives an award of £100. Other successful competitors are: Mr. William McMillan ("Sculpengro"), Sapper G. D. Macdougald ("Weary"), and Miss H. F. Whiteside ("Zero"). The three last-named artists receive a sum of £50 each.

The conditions of the competition stipulated that the plaque was to be as near as possible 18 square in. It could be in the shape of a circle $4\frac{3}{4}$ in. in diameter, a square of $4\frac{1}{2}$ in., or a rectangle of 5 in. by 3 3-5 in. It was suggested that the design should take the form of a symbolical figure subject, and with it had to be incorporated the inscription, "He Died for Freedom and Honour."

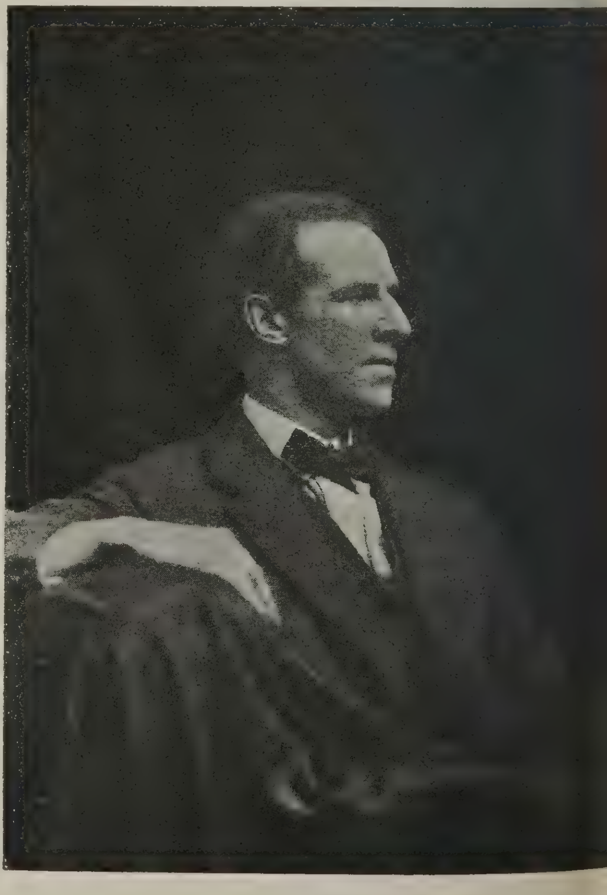
Mr. Preston has produced a design which seems to fulfil the requirements exactly. Relatives of those who have fallen in the war will be proud to have this symbol of their great sacrifice. The principal elements of the design are—a lion with the erect figure of Britannia holding a laurel wreath over an oblong panel, on which the name of the fallen hero will be inscribed. Mr. Preston has had some valuable pr vious experience of this class of design, having take part with distinction in the competition held some litt time ago by the Royal Numismatic Society for a med to commemorate the Battle of Jutland.

The memorial plaque is to be executed in bronz It is hoped that within a few days all the premiate designs will be on exhibition in a gallery of th Victoria and Albert Museum.



WINNING DESIGN IN THE NATIONAL MEMORIAL PLAQU COMPETITION.

BY E. CARTER PRESTON.



MR. E CARTER PRESTON

(Winner of the National Memorial Plaque Competition).

HOUSING OF THE WORKING CLASSES.

'HE following important circular was
issued to local authorities last week:

Local Government Board,
Whitehall, S.W.1,
March 18, 1918.

Sir,—1. I am directed by the President
the Local Government Board to advert
the circular letter of July 28, 1917, in
gard to the provision of houses for the
rking classes at the conclusion of the
r.

2. In that letter it was stated that the
vernment recognised that it would be
cessary to afford substantial financial
sistance from public funds to those local
thorities who were prepared to carry
rough without delay, at the conclusion of
e war, a programme of housing for the
rking classes approved bv the Board,
t it was not possible at the time to indi-
te the form which the financial assist-
ce from the State would take or the
tent of it. Mr. Hayes Fisher has been
communication with the Lords Commis-
ners of His Majesty's Treasury on the
bject, and, in regard to the financial
sistance which may be granted by the
ate to local authorities carrying out
using schemes under Part III. of the
using of the Working Classes Act, 1890,
soon after the conclusion of the war as
nds are available, or within a reasonable
riod thereafter, their lordships have laid
wn the following principles, namely:

e full cost of the scheme should, in the
first instance, be met out of the funds of
he local authority by means of a loan to
e raised by them and for a period of
ears, which my lords think should not
e less than seven, the necessary State
ssistance should be given in the form
f a grant of a percentage of the loan
harges sufficient to relieve the autho-
ity of 75 per cent. of the estimated
nnual deficit: the deficit in each case
hould be estimated, with due regard to
he actual increase in the cost of con-
truction in the particular locality, on the basis of the estimated annual expenditure and the estimated annual income over a period of years; the interest charge on loan moneys should be taken at the amount actually paid where loans are raised from an outside source specifically for the purpose, or at the current market rate where the money is provided from accumulated funds in the hands of the local authority. At the end of the period above referred to the property should be valued, and 75 per cent. of the excess (if any) of the amount of the loan outstanding over the then value of the property should be met by the State, either by writing off a portion of the outstanding liability (if the money was borrowed from State sources), or by the Government undertaking responsibility for the appropriate proportion of the loan charges for the remainder of its currency.

Any loans by the State for the purpose of assisted schemes would be made at the full market rate of interest current from time to time, and not at the preferential rates ordinarily allowed for housing loans, in order (1) that the whole of the State assistance may be given under one head, and (2) that local authorities may be encouraged to borrow on their own credit rather than to have recourse to State capital funds.

3. Mr. Fisher has always taken the view that in this matter there must be a partnership between the State and the local authorities, and he was not disposed to contend that as regards most local authorities the extent of the asistance which the Treasury proposed to give in accordance with the above principle was inadequate generally. He felt, however, that cases might arise, especially in agricultural areas, in which the sharing by local authorities in the contemplated deficit, even to the extent of 25 per cent., might prove a somewhat heavy burden. He accordingly represented to the Treasury that in these cases he should be empowered to allow a further proportion of the burden to be placed on the State, and made certain suggestions with this object. He is glad to be able to state that he has been sympathetically met by the Treasury in this matter. They have now stated as follows:

> My lords are willing to agree that the Board should have discretion, in cases in which 25 per cent. of the deficit in respect of any scheme would exceed the produce of a rate of a penny in the £ on the area chargeable, to increase the grant beyond 75 per cent., subject to the condition that the amount of the deficit to be borne by the local authority shall not be reduced below the produce of a rate of a penny in the £.

4. Mr. Fisher trusts that this announcement of the terms proposed in regard to State financial assistance will have the result of inducing local authorities generally to proceed with the preparation of housing schemes without delay.

5. In communicating their proposals for financial assistance, their lordships expressly ask that it may be made quite clear that the precise date at which the execution of any schemes approved by the Board can be commenced must depend on circumstances which cannot at present be foreseen, and that the financial position may be such that it may be necessary to give precedence to the more urgent cases, even to the exclusion for the time being of the less urgent.

6. Mr. Fisher thinks that he ought again to emphasise the fact that it is only in the very exceptional circumstances of the national emergency that the Government are proposing to give substantial financial assistance to local authorities for the execution of housing schemes.

7. In response to the circular letter of July 28 the Board have received up to the present time returns from over 80 per cent. of local authorities under the Housing Acts. Originally it was requested that the

returns should be furnished by October 15, 1917, in the case of local authorities desirous of availing themselves of any financial assistance from the State in aid of housing schemes, but the Board wish it to be understood that proposals from local authorities, even if they have not hitherto sent in returns, will be duly considered if returns are sent in without undue delay. They understand that some local authorities have not moved in the matter in the absence of any indication as to the form and extent of the State assistance, but this objection is removed by the above announcement. Although the information furnished in many of the returns is not of such a definite character as could have been desired, the Board are glad to note that in nearly 900 cases local authorities have stated that they have prepared, or are preparing or willing to prepare, schemes for the erection of houses by them, the total amounting to some 150,000 houses.

8. In these circumstances the Board think it desirable to communicate to local authorities generally some points of general application which it will be necessary to bear in mind in connection with their housing schemes. To some extent these will not apply to the local authorities in the County of London.

9. The Board will require to be furnished with the information, plans, etc., indicated in the enclosed Form D. 18, and with a balance sheet in Form D. 18a. In framing the balance sheet it will be desirable at present to calculate the amount of the loan charges on the rate of interest now in force for loans by the Public Works Loan Commissioners in respect of housing, namely, 5½ per cent. Any necessary correction on this point, as well as in regard to the amount of the capital expenditure in connection with the scheme, can be made at a later stage. The Board recognise that, in the first instance, only an approximate estimate can be given in regard to the amount of such expenditure.

10. The scheme must be prepared in relation to a particular site which the authority have selected as being the most suitable site available for the purpose, and it should be borne in mind that, in connection with schemes intended to secure Government assistance, the aim should be to provide that in ordinary circumstances not more than twelve houses (or in agricultural areas, eight houses) should be placed on an acre of land wherever this is possible without materially increasing the cost of the scheme.

11. In view of the restrictions placed upon the raising of loans by local authorities during the continuance of the war, it is desirable that the local authority should endeavour to make such arrangements for the acquisition of land as will not involve the payment of the purchase money until after the war, and that any provisional agreement entered into by the authority should stipulate that the purchase money should not be required to be paid until the Board have sanctioned the borrowing thereof. In only very exceptional circumstances could the Board sanction loans for the purpose during the war, and then only for very small amounts or for a proportion of the purchase money.

12. If it is found that, when prepared, the housing scheme fails to comply in any respect with the bye-laws in force in the district in which the houses are to be built, attention should be specially drawn to the points in respect of which the bye-laws are not complied with, and in order to save time a statement should be forwarded to the effect that, in the event of the plans being approved and if by an amendment of the bye-laws similar schemes could be authorised to be carried out by any other body or person in future, the appropriate local authority will be prepared to make application to the Board for approval to any amending bye-law which may be necessary for that purpose.

13. It will be a condition of any financial assistance given by the Government that the erection of the houses shall be commenced within two months from the date of the sanction of the Board to any loan, and that the houses shall be completed by a date fixed, not being more than twelve months from the date of sanction unless circumstances are very exceptional. Provision will, however, be made for an extension of the term where circumstances necessitate this.

14. The Board have issued a revised Memorandum with respect to the provision by local authorities of houses for the working classes, including twelve designs in regard to the arrangement of the rooms, etc., in such houses. A copy of this Memorandum has been, or will be, forwarded to each local authority that, so far as the Board are aware, is willing to proceed with the preparation of a housing scheme, and to any other local authority that applies for the same. Further copies may be obtained from the sources indicated on the title page of the memorandum.

15. Mr. Fisher desires at the same time to state that by his request the Royal Institute of British Architects is conducting a competition for suitable designs for houses of the working classes, the result of which will be announced in due course. [These results have appeared in former issues. —EDS. A. AND B. J.] Also a committee appointed by him is now considering questions of building construction in connection with the provision of dwellings for the working classes in England and Wales, and is to report upon methods of securing economy and despatch in the provision of such dwellings. The report from this committee is expected shortly.

16. In regard to the question of materials required for the erection of buildings and the construction of works after the war, a committee apointed by the Minister of Reconstruction is engaged in a comprehensive investigation of the subject.

17. Mr. Fisher trusts that, in regard to each district in which there is an admitted need for the provision of additional houses for the working classes which the local authority are of opinion will not be met by any form of private enterprise, the local authority will at once give instructions for the preparation of a housing scheme if this has not already been done, and submit their proposals to the Board with as little delay as possible. In those cases in which schemes have already been submitted, including many for which loans were sanctioned prior to or during the early months of the war but which were not proceeded with, it will be necessary to reconsider the schemes in view of existing circumstances and in the light of the foregoing observations, particularly those in paragraph 10, and it would be of great convenience to the Board in connection with such reconsideration to receive from the local authorities concerned the Forms D. 18 and D. 18a above mentioned duly filled up, together with any amended plans and particulars that the altered circumstances require.

I am, Sir,
Your obedient servant,
H. C. MONRO, Secretary.

CONCRETE POULTRY HOUSE AND PIGGERIES.

In the minds of most people concrete
associated principally with great constru
tional undertakings, such as docks, ha
bours, and breakwaters; or it is regard
as suitable, chiefly, for foundations
other forms of mass work where weig
and strength are the chief requiremen
Wider knowledge would teach tha
crete is not only invaluable in gr
works, but is peculiarly applicable to
infinite variety of minor uses.

Nowhere, perhaps, may concrete
more advantageously employed than
those cases which are concerned with
raising of stock. Modern scientifi
search has given a clearer understandi
of the vital importance of sanitatio
Damp, ill-ventilated, badly lighted
unclean houses are a constant and fert
source of disease amongst animals
birds, and where such conditions ex
considerable loss is the inevitable resu
Where, on the other hand, the houses
dry, clean, bright and free from vermi
the stock, other things being equal, w
thrive, and will be a source of satisfacti
and profit to the owner.

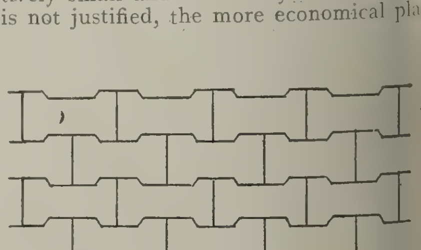
Poultry Houses.

If there is any choice of location th
poultry house should, if possible,
erected on a porous soil with good natur
drainage, such as chalk or gravel; and
should be so placed that it secures plen
of sunlight, this being as essential to th
welfare of the birds as it is to tha
human beings. The windows, too, shou
be large for the same reason, and also
provide an abundance of fresh air.

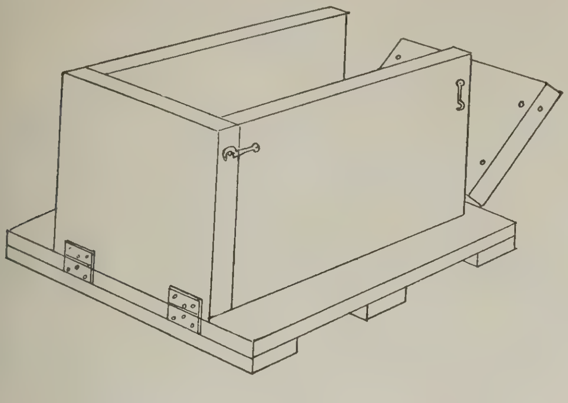
The poultry house, whether on the far
on the allotment, or in the garden, ma
be built either of concrete blocks ma
beforehand, of solid concrete moulded
position, or of some form of asbestos an
cement sheeting, of which there a
several excellent types on the market.

Concrete Blocks.

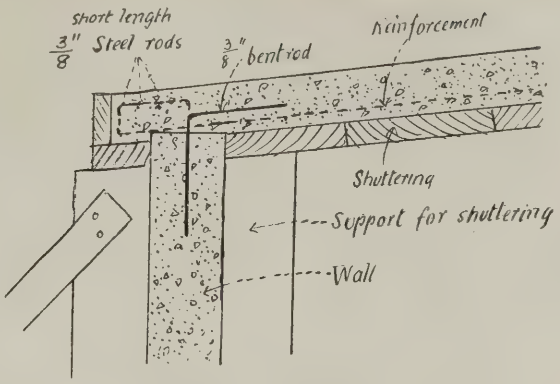
Concrete blocks or concrete partiti
slabs constitute a cheap and convenie
form of construction for small buildin
such as those under consideration. The
blocks may be purchased ready-made fro
various firms who specialise in this pr
duct, or they may be moulded by one
other of the several machines which a
now obtainable, or they may be made
the user in iron moulds, or in simp
wooden moulds such as he could constru
himself or get a joiner to make for hi
Where any considerable quantity is r
quired it is advisable to have a machin
since it is durable in itself and it enabl
the blocks to be turned out rapidly; bu
where the number required is compar
tively small and the outlay on a machin
is not justified, the more economical pla



ARRANGEMENT OF CONCRETE BLOCK IN A WALL.



MOULD FOR CONCRETE BLOCKS.



ARRANGEMENT OF CENTERING AND REINFORCEMENT FOR CONCRETE SLAB ROOF.

; for the user to make the blocks himelf.

Piggeries.

A pigsty may be constructed of concrete locks or of concrete laid *in situ*. If the ormer method be adopted the procedure ill be similar to that for a poultry house.

Summary.

1. Mark out the ground and clear off egetation.
2. Prepare the foundation, if such is ecessary.
3. Have all your forms, reinforcement, nd tools ready.
4. Dig a trench for the "footing" of the alls (the width of the "footing" should e twice the thickness of the wall).
5. Mix the materials very thoroughly.
6. Place in the trench *without delay*, amping well in layers.
7. Leave the top of the "footing" ough.
8. Place the wall-forms in position.
9. Deposit the concrete as soon as ixed, tamp well, and "spade" the dges.
10. Partly embed iron rods in the top f the walls if a concrete roof is to be dded.
11. Remove the wall-forms after six or even days.
12. Lay the floor.
13. Place the centering for the roof in osition.
14. Lay 1 in. of concrete upon it, and amp.
15. Place the reinforcement in position.
16. Lay 3 in. of concrete on the reinforcement, again tamping.
17. Smooth with a "float."
18. Remove the centering after a fortnight.
19. Spray the structure with water.
20. Proceed similarly with the pen.

Note.—The floor may be laid after the roof has been put on if desired.

Materials Required.

In order to ascertain the quantity of materials required first calculate the volume of finished concrete the building will contain—that is to say, the cubical contents of walls, floor and roof (if of concrete).

For *every cubic yard* of finished concrete the following materials will be required:

A. For the wall-footing with a 1:3:6 mixture: Portland cement, 374 lb. or 3 1-3 cwt.; sand, .46 cu. yd.; coarse material, .92 cu. yd.

B. For walls with a 1:2:4 mixture: Portland cement, 534 lb., or 4¾ cwt. (nearly); sand, .44 cu. yd.; coarse material, .88 cu. yd.

C. For roof and piggery floor with a 1:1½:3 mixture: Portland cement, 681 lb., or 6⅛ cwt. (nearly); sand, .42 cu. yd.; coarse material, .84 cu. yd.

The length of steel rod required for the reinforcement of the roof will depend upon the size of the slab, and is easily calculated.

The foregoing particulars and the accompanying illustrations are taken from a valuable little pamphlet issued by the Concrete Utilities Bureau, 6, Lloyds Avenue, E.C.3.

ARCHITECTS' BENEVOLENT SOCIETY.

The annual meeting of the Architects' Benevolent Society was held in the rooms of the Royal Institute of British Architects on March 21.

Mr. Ernest Newton, A.R.A., the President, occupied the chair.

The annual report was read as follows:

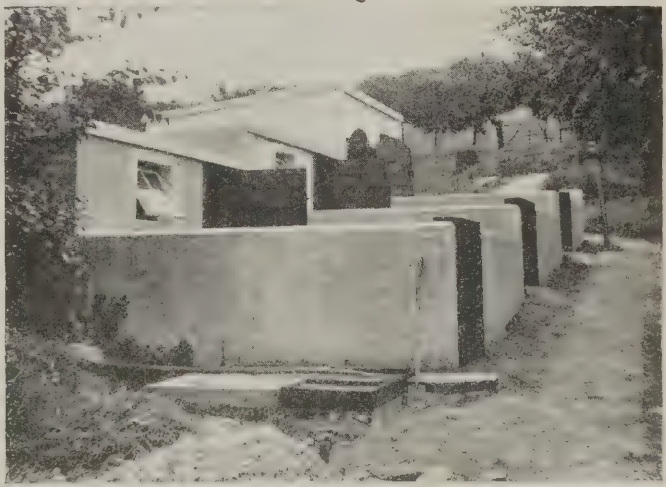
Report of the Council.

In submitting their sixty-eighth annual report, the Council have to report the continuance of activities which have formed part of the work of the society since the outbreak of the war.

The scheme of civic surveys continues to fulfil the purpose for which it was inaugurated in the three areas, Greater London, South Lancashire, and South Yorkshire, sanctioned by the Government Committee, and has provided temporary employment for a large number of architects. The funds administered by the society in this connection at the end of the year amounted to £9,700.

The funds at the disposal of the Architects' War Committee, which are also administered by the society, having

OULTRY HOUSES CONSTRUCTED OF CEMENT-ASBESTOS SHEETS.



PIGGERY CONSTRUCTED OF CONCRETE LAID IN SITU.

become exhausted towards the end of the year, the President, Mr. Ernest Newton, issued a special appeal on November 26. This met with a considerable response, and the amount received will enable the committee to continue its work of subsidised employment and other methods of assistance. The amount already distributed since the formation of the committee is over £3,000.

The ordinary relief work of the society, the assistance of pre-war cases and of the widows and orphans of architects, has followed its normal course, £866 16s. 9d. having been paid in grants and £227 10s. distributed in the payment of pensions. During the year two pensioners have died, and a new pension has been granted to the widow of an architect.

During the last three years there has been a gradual falling-off in subscriptions and only a small addition to the list of new subscribers. While the Council are aware of the many claims of the present time, they hope that the work of the society may not suffer from lack of adequate support. The proportion of subscribers to the number of practising architects is small, and the objects of the society should claim a larger measure of sympathy from the profession at large.

The amount received in donations was £105 15s. as compared with £313 7s. received in 1916. In addition to the donations legacies of £50 and £25 were received from the executors of the late Mr. R. Phené Spiers and Mr. Walter L. Spiers.

With regard to the capital account, the society's holding of £800 Exchequer Bonds were converted into National War Bonds, with an additional investment of £200 in order to make the total amount £1,000.

The Council have to record with great regret the death of two of their most helpful members, Mr. Walter L. Spiers and Mr. Howard Chatfeild Clarke, who were greatly interested in the work of the society. Following the vacancy caused by the death of Mr. Walter L. Spiers, who was a senior member of the Council, the four remaining senior members retire by rotation: Mr. Percy B. Tubbs, Mr. W. Henry White, Sir John J. Burnet, and Mr. William Woodward. To fill the vacancies caused by these retirements, the Council have the pleasure to nominate Sir Ernest George, Mr. Osborne C. Hills, Mr. H. D. Searles-Wood, Mr. Sydney Perks, and Mr. Arthur Crow.

The society during the year in its various spheres of activity has worked in useful co-operation with the Professional Classes War Relief Council, the National Relief Fund, the Professional Employment Committee, and the Artists' General Benevolent Institution, to whom the thanks of the Council are due. They would further wish to express their thanks to the members of the staff of the Royal Institute of British Architects for their unfailing courtesy in all matters connected with the society.

On the motion of Mr. Walter Cave, seconded by Mr. H. M. Fletcher, the Council for the year 1918-19 was elected as follows:

President, the President R.I.B.A.; vice-president, Mr. Reginald St. Aubyn Roumieu; ordinary members, Messrs. Arthur Ashbridge, A. Saxon Snell, Lewis Solomon, J. T. Cackett, William Grellier, Edwin T. Hall, Henry Lovegrove, E. T. Sadgrove, Sir Ernest George, Osborne C. Hills, H. D. Searles-Wood, Sydney Perks, Arthur Crow, George Hubbard.

Mr. William Woodward moved, and Mr. William Grellier seconded, a vote of thanks to Mr. Hilton Nash, and also moved his re-election as hon. treasurer, which was carried.

A similar vote was passed to Mr. Percivall Currey, moved by Mr. C. H. Brodie and seconded by Mr. Saxon Snell. On the motion of the same gentlemen, Mr. Percivall Currey was re-elected as hon. secretary.

A vote of thanks to the retiring hon. auditors, Mr. Herbert Shepherd and Mr. Osborne C. Hills, was moved by Mr. Henry Lovegrove and carried.

Mr. Herbert Shepherd and Mr. W. Henry White were elected hon. auditors for the coming session.

Mr. Lewis Solomon proposed, and Mr. W. Henry White seconded, a cordial vote of thanks to Mr. Newton for presiding, not only at the present meeting, but at the previous meetings which have been held since his presidentship of the society.

NEWS ITEMS.

A Builder's Estate.

Mr. Tom Horsfall, of Ings House, Liversedge, Yorks, builder and contractor, has left estate valued at £48,435 gross, with net personalty £21,403.

American Buys Kentish Estate.

Mr. A. Chester Beatty, of the United States, has purchased the Galehill Park estate, near Ashford, Kent, for centuries the home of the Darell family. The house contains a Roman Catholic church of the pre-Reformation period, and as Mrs. Chester Beatty is a member of that faith the continuity of its use will not be broken.

Waterproofing and the Housing Problem.

In the Government Memorandum dealing with "The Provision and Arrangement of Houses for the Working Classes," it is noted that "Brickwork, covered externally with rough-cast or cement, is an economical form of construction." The best and most lasting results are obtained when waterproofed cement is used. Striking evidence of the successes that have followed the use of Pudlo for waterproofing both concrete blocks and cement is furnished in the Booklet 15 just published by Messrs. Kerner-Greenwood and Co., Ltd., King's Lynn, by whom it will be sent free to any reader who is interested in the housing question.

South Wales Institute of Architects.

The following gentlemen have been re-elected officers of the Council of the South Wales Institute of Architects: President, Mr. J. Cook-Rees, M.S.A., Neath; vice-presidents, Mr. E. W. M. Corbett, F.R.I.B.A., F.S.A., and Mr. Ivor Jones, A.R.I.B.A.; hon. treasurer, Mr. H. Teather, F.R.I.B.A.; hon. secretary, Mr. C. H. Kempthorne, Licentiate R.I.B.A.; hon. librarian, Mr. G. E. Halliday, F.S.A., F.R.I.B.A.; hon. auditor, Mr. Lennox Robertson, F.R.I.B.A. The Council confirmed the action of the president in circularising all Urban and Rural District Councils in South Wales on the desirability of engaging duly qualified architects for housing schemes and public buildings.

A.A. ROLL OF HONOUR.

The following particulars are tak from the March issue of the A.A. Journa

Killed.

A. N. Peckham, Lieut., Indian Infantry

Lieut. Peckham was killed by a fa from his horse on February 14. Whilst active service Lieut. Peckham contribute a number of articles to the "Journa the most recent of which appeared in th last issue. He was an old A.A. stude and had been in the Indian P.W.D. sin 1912.

Gutteridge, R. H., 2nd Lieut., Londo Regiment. October 1, 1916. (Pr viously reported missing.)

Rogers, C. W., 2nd Lieut., Royal W Surrey Regiment. (Queen's). Decem ber 28, 1917.

Honours: Awarded the Military Cros

Robertson, A. W., Major, Royal Garriso Artillery.

Scott, A. Gilbert, Major, Royal Engineer

Mentioned in Dispatches, December 17, 1917.

Pigott, R. M., Lieut. (Acting Capt. Royal Engineers.

Ross, H. A., Corporal, Topo. Sectio H.Q.

Promotion.

Whitburn, A. Stuart, Royal Field Arti lery, from 2nd Lieut. to Lieut. (ant dated June, 1916).

Corrections.

We regret that 2nd Lieut. W. H. Jone R.F.C., was reported a "prisoner i German hands" in the November issue the "A.A. Journal" in error. The mistak arose owing to a similarity in name an regiment.

Mr. J. Pain-Clark, whose name appeare as a private, A.S.C., in a recent issue the "A.A. Journal," should have bee described as 2nd Lieut., A.S.C.

COMPETITION.

Cottage Designs for the Welsh Housin and Development Association.

In connection with the Royal Nation Eisteddfod of Wales, to be held at Neat a premium of £50 is offered for the be design for a cottage in each of the follo ing three classes: A, comprising livin room, scullery, and three bedrooms; as A, with the addition of a parlour; accommodation at discretion of con petitors, but there must be, as a minimun three bedrooms, planned entirely mainly on one floor, and of a type spec ally suitable for Anglesey. A furth premium of £10 is offered for the be design of living-in quarters for unma ried agricultural labourers. In Class the prize is given by Sir Alfred Mon Bart., M.P.; in Class B by Mr. E. John, M.P.; in Class C jointly by Lor Boston and Mr. R. J. Thomas; Lad Boston giving the prize for the supplemen tary class. Particulars of the competitio which is open to any British subject, ma be obtained from the secretary of th Welsh Housing and Development Ass ciation, Mr. Edgar L. Chappell, 3 Charles Street, Cardiff; or from M Philip Thomas, general secretary of th National Eisteddfod.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

APRIL 10, 1918. TOTHILL STREET, WESTMINSTER. VOLUME 47. No. 1214.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restric- ns on paper supplies, all elements of waste must rigorously excluded. Our readers, we are sure, 'l gladly assist in promoting this object, which is item in national economy. They can co-operate h us effectually in either of two ways—(1) By cing a direct subscription for this Journal, or (2) placing with a newsagent an order for its regular ivery. Casual purchases—now here, now there— ate a serious discrepancy between supply and nand, and cause wastage of effort and materials.

VE have received from the North-Western Federation of Building Trade Employers a circular letter, signed by the president and by secretary, in which complaint is made that the vernment, while laying stringent restrictions on lding, has been slow to avail itself of indicated ans of relaxing that stringency, and has thus icted unnecessary hardships on the building trade, well as wasting public money. Joint-representatives employers and employed, submitting improved thods of organising Government building contracts h mutual advantage to the State and the industry, e been courteously received by Sir Auckland ddes and others, but, after the lapse of five or six nths, nothing has come of these conferences. htly or wrongly, the inference drawn by the North- stern Federation is that Sir Auckland, whose tude in the matter is beyond reproach, is for some son unable "to put into effect the suggestions erging from the meetings." Hence the question es, Who or what is obstructing him? In normal es, we should have no hesitation about pressing question right home; but, considering the gravity he crisis through which we are at present passing, are for the moment inclined to advise continued ient endurance of the evils from which we are suffering. It is right and proper to draw attention such matters as those set forth in detail in the ular, which, however, was probably prepared ore the present critical position was reached. ving every sympathy with the object of the circular, would nevertheless urge the national importance doing nothing whatever, just now, to divert the ntion of any member of the Government from centrating heart and soul on the supreme object of rcoming the enemy. Yet a little while and the kest clouds will have been dispelled, and then the ortunity may arise to advance civil interests, but present hour is inauspicious.

* * * *

Ve have received also a letter in which a bitter plaint is made that so little use has been made of nbers of the building trade—men over military age, , having a large practical and technical experience, vainly offered their services to the Govern- t. "I know many," our correspondent says, "who done their utmost to get Government employ- t, and they would have been an acquisition to any artment, but I have yet to hear of one who has been essful." He adds the cynical comment, "You l not apply if you know anything about the work." declares, further, that "contracts have been ed, except to a favoured few, some of whom have had ten or twelve contracts at one time, while hundreds of others, who had been on the various lists for years, have never even been asked to tender. This work could have been better distributed, and would then have received more personal attention, and would probably have been done more quickly and at less cost." We fear that this is all very true, but that the complaint is a little belated. Also, for the reasons expressed in the preceding paragraph, we think it somewhat inopportune; unless, indeed, it may be regarded as having some relevancy to the man-power problem that is now in debate. There can be no question that, quantitatively and qualitatively, the wastage of man-power is even more deplorable than the waste of money, and that when the time comes for those who are responsible for it to render an account of their stewardship they will have their reward. But that time is not yet. For the moment, complete national unity, the suppression of all personal and sectional grievances, the preservation of a firm moral tone are necessary to secure the victory for which our troops are fighting so strenuously.

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A "Times" reviewer summarises very neatly the aims of the two schools of thought on reconstruction. These are—(1) external changes, such as new legislation, new forms of taxation, new organisations of industry, new land systems, new provisions for unemployment; and (2) internal and moral changes, such as stimulation of intelligence, diffusion of knowledge, encouragement of habits of industry and thrift, a new sense of responsibility in employers and employed, with co-operation to the benefit of both. "Under which king, Bezonian?" One would say, under neither to the exclusion of the other. Both external and internal changes are inevitable, concomitant, interdependent—in as close a relationship to each other as elevation to plan, or as the compartments of a plan. It may be said that while (1) is the more socialistic, (2) is the more Fabian in the Roman rather than in the London sense of the word; for while external changes may be rushed through in a session, internal changes may require two or three generations, and full realisation would seem to involve an intensive application of the science of eugenics! These two schools, however, are not in opposition; it is only that writers on reconstruction seem susceptible of division into those who lay particular stress on the one set of changes or the other, those who are eclectic being hardly numerous enough to form a third class. It is the old antagonism of Nominalist against Realist, Priorist against Posteriorist, Collectivist against Individualist: and the issue is always compromise. Getting away from these airy abstractions, we have to face the very concrete fact that there is a big bill to pay, that future Chancellors of the Exchequer must by hook or by crook raise the money to meet it, and that industrial conditions must be profoundly modified before they can be made to yield the required revenue. There cannot be the slightest doubt about the resiliency and resourcefulness of the British race, which, however, seemed to lack the stimulus of a great endeavour. Now we are to have better education and better schools, better housing and higher productive energy, more efficient factories and more economic production; and right building is seen at once to be a vital factor of reorganisation, if not the pivot on which it turns.

In a recent issue of the "Architectural Association Journal" Mr. Horace Farquharson, hon. treasurer of the Association, announces that in the summer a sale of drawings and objets d'art will be held, with the aim of augmenting the funds. Members and their friends, and all interested in architecture, are invited to contribute sketches, prints, and so forth, for sale in this cause; and it is very delicately hinted that now is the time to revive, or to bring up to date, membership subscriptions. There is no member of the A.A., we are sure, who would not do his utmost to prevent its languishing "for want of a few rascal counters," as Disraeli phrased his shortness of shekels. Nor is there any need to recall what splendid war-time work the A.A. has accomplished, or how hard it has been hit in the treasury department. There is no need to expatiate on this sordid theme: to remind friends of the A.A. that it needs their help is enough. "At all costs," Mr. Farquharson writes, "we must keep going, so that, when our members return from their world-wide duties, we may be ready to give them the mental food their souls will be craving." It is a dignified way of putting the case, and we shall be glad to hear of an appropriate response.

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In drawing attention, in our columns, to "A Neglected Aspect of the Housing Problem," Messrs. Morris and Parnacott have doubtless given expression to an idea that was latent in many minds. It is pitiful to see the degradation into which many fine old streets and squares, not only in London, but in many country towns, have fallen. For their original dignity they owed much to a local and partial application of town-planning ideas; their deterioration has arisen from fortuitous departures from those ideas. The process of degradation seems to be somewhat as follows: First, a single owner builds a street, a square, or perhaps only a row of houses, in accordance with a general plan and purpose. In course of time, there are many owners where at first the ownership was single. Then, even supposing that the "character of the neighbourhood" is not yet changed, the houses gradually lose their harmonious agreement. They are "done up" separately and in diverse ways; or some of them are utterly neglected while others are painted and plastered, and modified in their external details, until the architect who designed them would hardly recognise them, and, in any case, would not care to father them. Finally, the hotchpotch is completed by putting the houses to miscellaneous uses for which they were never intended. Some are "converted" into shops, others into offices or warehouses. Such of them as remain residences become dingy boarding-houses, or swarm with working-class tenants.

* * * *

Is the rehabilitation of these fine old houses at all possible? As far as we can see, there is only one way in which this object could be secured, and that is by State or municipal purchase, and hence the re-establishment of central control. It would, we fear, involve an enormous cost, because there would be so many trading and other vested interests to satisfy. In some instances, however, it would be cheaper, and infinitely preferable, under the national housing scheme, to convert fine old houses than to build new cottages. It is difficult to see how otherwise the workers of London, or of certain large provincial centres of industry, are to get their fair share of the benefits of the national scheme. Cottages cannot be built near enough to the town-labourer's working-place. Land is too precious; full value can be got out of it only by considerable vertical extension of the buildings put upon it. Countless thousands of workers in London are dwelling within a three-mile radius of
the City. Many of them, such as printers, are ni
workers, for whom "easy transit to the suburbs
either very inadequate or is non-existent. Comm
they herd together, several families to a three-st
house, using the sanitary conveniences in comn
and in other ways lacking the privacy that is es
tial to the maintenance of a decent standard of
respect. Everybody's house is nobody's home.

THE PLATES.

Ely House, Dover Street, London.

ACCORDING to Gwilt, Sir Robert Taylor,
was born in 1714, enjoyed, in his generat
considerable prosperity as an architect,
he "nearly divided the practice of the professi
with Paine till Mr. Robert Adam entered the l
Ely House preserves much of the vigour of
Palladian tradition, and it is an extremely effec
example of street architecture on a narrow front.

A Drawing of St. Peter's, Rome.

Louis Haghe was a Belgian who, born at Tou
on March 17, 1806, came to England as a yo
man and achieved very considerable popularity
success. His right hand was deformed from bi
and all his drawings were executed with the
After being in college at Tournai for about ten ye
he received a course of special instruction in wa
colour drawing from the Chevalier de la Barri
a French emigrant who had set up a lithogra
press in the town. The drawing of the trans
of St. Peter's, Rome, is dated 1864, and is nov
the Victoria and Albert Museum. (Height 4
4½ in., width 3 ft. 8½ in.)

Interior of a House at Tuxedo, New York.

Mr. Charles A. Platt, following the eightee
century tradition of this country, has evolved in
United States a style of domestic architecture w
stands high above the general level of contempo
work. The interior of a house at Tuxedo,
York, is a characteristic example of his m
having a grace and sweetness that stamp it indel
as the work of a man of singularly refined taste.

Detail of a Late Eighteenth-century Ceiling.

This detail shows part of a ceiling from No.
Hanover Square (formerly the premises of
Royal Orthopædic Hospital, and now demolish
The original painted panels, together with reproc
tions of the moulded plaster, are now in the Vict
and Albert Museum.

Sculpture Group on the Arc de Triomphe, Par

The sculpture group "Resistance," by Ant
Etex, on the side of the Arc de Triomphe fac
towards the Avenue de la Grande Armée, makes
immense appeal to the imagination. The basis
its design is geometrical. It towers up from
well-proportioned pedestal in a series of brill
surfaces which give the utmost effect of light
shade. The sculptor's inspiration for this gr
was wholly French; but while it owes a small
of its technique to Greek precedent, it retains
crude vigour of Roman sculpture of the best per
The sculptor, while paying a tribute to the ge
of Le Brun, whose pyramidal groupings on the p
of the Porte St. Denis afforded a prototype, exce
the work of that master by dispensing with
obvious architectural line, and attained his res
by a consummate study of parts. This group
scultpure, irresistible in its majesty, is typical
the undying heroism of France.

HERE AND THERE.

WHEN there is a fresh outbreak of large and vague demands for "traditional" and "vernacular" cottage building, I can never feel
e sure of what is meant by those terms. I sup-
that in different mouths, and with varying moods,
have different meanings—that they are not con-
ts, but variables and mutables. I can only trust
ay, it is quite certain—that no architect would wish
erpetuate the "traditional" and "vernacular" as
cribed by Chadwick in his famous report published
842. No; it would not be fair to apply those terms
he horrible hovels that stood for cottages in "the
gry 'forties." It will be more just to assume that
se hovels were not traditional, but were symptoms
e frenzied fever of industrialism. They stood also
other fevers, not figurative, but literal, lethal, and
odic if not chronic.

* * * *

or example, Chadwick quotes a Mr. Parker on the
ages of Buckinghamshire. They were constructed
nud. When you come to think of it, all buildings
constructed of mud; for the same reason that
perial Cæsar, dead and turned to clay, May stop
ole to keep the wind away." Nothing that is on,
or about a house—nothing on earth, indeed, with
possible exception of meteorites—can evade this
mate issue. There is a sense in which mud and
ble are convertible terms. Brick, stone, timber,
al——. By why pursue this truism to the utmost
nd of banality? Those Buckinghamshire cottages
e of mud pure and simple, and more simple than
; for "the vegetable substances mixed with the
l to make it bind rapidly decompose, leaving the
ls porous," while "the earth of the floor is full of
etable matter, and, from there being nothing to
off its contact with the surrounding mould, it is
uliarly liable to damp. The floor," Mr. Parker
s on relentlessly, "is frequently charged with
nal matter thrown upon it by the inmates, and this
dly decomposes by the alternate action of heat and
sture. Thatch placed in contact with such walls
edily decays, yielding a gas of the most deleterious
lity. Fever of every type, and diarrhœa, are
emic diseases in the parish and neighbourhood"—
become, I suppose, vernacular and traditional.

* * * *

hey were not peculiar to Buckinghamshire; for we
told in the same report that "in the neighbourhood
Stratford-on-Avon, simple continued fever,
cribed to be similar in character to the form of
r which frequently occurs in the autumn and begin-
of winter throughout England, prevailed very
ensively in the winter of 1839. Of thirty-one
ents attacked by it, seven died." Yet well-inten-
ed country squires, and the like, are still
ocating what they call pisé-de-terre construction,
what I, preferring the vernacular and traditional
, take leave to call mud hovels. No doubt the
acular varied with the district. We have seen that,
he 'forties, in Buckinghamshire, Berkshire, and
rwickshire, it spelt mud and fever. An unnamed
tleman quoted by Chadwick shows that in Cheshire
eant "unhewn stone," which he regarded as the
worst material possible for cottage-building. It
le the cottages damp and dirty, and the occupants
dy and unhealthy. "Wood and wattled houses,"
declares, "such as our forefathers built, are the
st and warmest of all; brick is inferior in both these
isites of a comfortable house." So for him wood
wattle was traditional and vernacular.

There you have it. You shall find no two persons in agreement as to what these precious terms mean. In Devonshire, at the same date, they implied absence of ventilation; for it was recorded by the Rev. C. Walkey that "cottages for the most part are without sufficient ventilation, particularly in the upstairs apartment, this being almost invariably without a chimney, with a low window, commonly about two feet from the floor, and having no ceiling; therefore, the thatched roof, lofty in itself, and full of cobwebs, contains the foul air; and in several instances I have been the means of restoring health, apparently, by blowing gunpowder in cases where fever has raged for months, the ground-floors being often damp—very seldom above the level of the land." That practical-minded parson felt that somebody or something would be all the better for a good blowing up; and probably his powder would have been wasted on a more remote objective; the origin of the evil being traditional, and the originators beyond his reach. Here it becomes apparent that for some at least of the wretched housing of the period the sudden expansion of industrialism was not to blame. These houses were of ancient date. Their vices were inveterate. They may have looked like "a natural outgrowth of the soil"; for well they might, considering those earth floors: but they fostered fevers.

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That hitherto soul-satisfying phrase "traditional and vernacular" is beginning to pall upon me. I find myself wondering whether it means much more than perpetuating the ignorant blunders of our untutored ancestors; or whether, indeed, it means anything at all. A horrid suspicion assails me that it is mere cant, empty of all content—one of those voided vessels that sound all the better for having nothing in them. It is as a tinkling cymbal wherewith to eke out a vapid paper or speech. I can imagine that Professor Lethaby has got it on his list of words and phrases that should be excluded from debates at the Institute, especially at Informal Conferences. Forster's Education Act and the network of railways emasculated the vernacular, and tradition was killed off by cottage fever. If you are whirled past twenty traditions in two hours, your mind gets confused about them, and in your next design you will mix them up as hopelessly as in a garden suburb, where also the vernacular is entirely superseded by art-jargon.

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Is it not reasonable, therefore, to suppose that the Education Acts and the railways have rendered vernacular building impossible? If a man never went outside his native village, never saw anything but native materials, never read (or could not read) a trade paper, never visited a building exhibition, and was bound by no by-laws, he might be forgiven his ignorant wallowings in the traditional and the vernacular. But it is now justly expected of him that he shall build according to knowledge, and that his building shall be eclectic, if not cosmopolitan; his choice of methods and materials being no longer confined to what he could pick up in the parish. As a saving clause, it may be added that even with the most highly educated, the vernacular will out; and is it not all the more delightful for spontaneousness and irrepressibility? And between the Scylla of vernacularism and the Charybdis of standardisation, is there not some safe middle course? But it demands rather delicate steering.

DIOGENES.

PREPARING FOR PEACE. VII.—GUILD SOCIALISM AND OTHER REMEDIE

BY C. H. B. QUENNELL, F.R.I.B.A.

THE last article in this series, published on March 27, was devoted to Self-Government by the Industrial Councils outlined in the Whitley Report. In this the suggestion was made that if such a Council could be formed of the whole of the building trade, including all the masters and their federations, all the men and their unions, architects and allied manufacturers, then an approach would be made to the spirit of the Guild System of the Middle Ages. It was further pointed out that such form of self-government might well prove an admirable remedy for some of the ills with which industry is afflicted at the moment. A community is supposed to obtain the sort of government it deserves, and the same may hold good for a section of it. If the Industrial Councils fail, it will be because we cannot govern ourselves, for the proposals amount to no more than an invitation so to do. If all the men join their unions they can still fight all the masters in theirs; that is if they want to.

So in this article some consideration will be given to counter proposals. An extremely interesting letter from Mr. Arthur J. Penty was published in the issue for March 20, which was in some measure answered by the article of the 27th, to which reference has been made. Mr. Penty is well known to his brother architects as the writer of two books of great interest, "The Restoration of the Guild System" (1906) and "Old Worlds for New" (1917). In these he is disclosed as a follower of Ruskin and Morris, hating industrialism as an invention of the Devil.

Mr. Penty notes how modern industry is concerned with quantity rather than quality; how the workman is losing his independence, and being pushed by circumstance into a servile condition of life. Mr. Penty hates the whole modern atmosphere; the industrial town that creeps like a blight into the pleasant countryside; the slum and its gin-palace; vice and disease, and the forlorn little half-timer. But we all hate these things.

The suggestion is that they would be done away with by a restoration of the guilds, abolishing the wage system. How far this is possible is a question for the economists. The mediæval guild fulfilled its functions admirably, so long as business was local, but lost its utility during the expansion and beginnings of foreign trade at the end of the fifteenth century. Mr. Penty rails at the merchant class, but it is difficult to see how they can be dispensed with: a City firm, for instance, may buy steel rails here, and export to the East for a new railway, and import, by way of exchange, copra and pearls. The merchant may trade in many manufactures, whereas the guild could only export its own products, and would hardly want the like in exchange, and accepting others would become a merchant. But Mr. Penty does not want to recreate the mediæval guild; only capture its spirit for fine work, and, called by another name, the Whitley Councils could be so developed.

Certainly, so far as the building trade is concerned, this is possible. The exchange of commodities does not worry us, and thank heaven we have so far escaped the worst evils of industrialism. With reference to the abolition of the wage system, one's experience is that the men prefer things to remain as they are. The writer in 1896 tried to start a woodworking shop, which was called the Lambeth Guild of Handicraft. Some good men were got together, and proposals were made quite on mediæval lines, but not received with any enthusiasm; they wanted their wages for Saturday night. Their resources were too scanty to take risks. After a year or so the business was given to the men, but it again resulted in the fo man taking it on, and employing the others, paying them wages; but for a good many years we first-rate work and it was great fun.

To restore the guilds and turn them into trad concerns would need the provision of capital or colossal scale, which could not be safely entrustec such amateur concerns as the same would be at start. The Whitley Councils would be a train ground.

Mr. Penty will not agree that there is any hope in Whitley Councils, and his reason for this is founc the last chapter of his book, "Old Worlds for Ne Here he states his opinion that the disease of society has proceeded so far that the only thing to is destroy it. This, in our opinion, spoils a fine bo There is quite enough destruction going on with tumbling down our own house. If the men at front, when they come back, demand a revolution, shall all rush to help them. Meanwhile our job reparation; putting our house in order, not pulling down, and doing all that is in our power in preparat for the work ahead. We really cannot celebrate pe when it comes, as a picnic in the midst of ruins, a not very picturesque ones at that.

The National Guilds League's proposals are ba on Mr. Penty's ideas, but lack all his appreciation the dignity of labour and the value of good wo They seek the abolition of the wage system and master class. The League has issued two pamphl on the Whitley Report, in which is said, "While set out, not to improve relations between employ and workmen, but to make the whole relationsl between them impossible," and it is hardly necess to state after this that the League is not in favour Industrial Councils. They recommend that whe representatives of Labour do enter Whitley Counc they are "not to improve relations between employ and employed, nor even to increase the efficiency industry," but, indeed, are "to press vigorously t movement to the securing for Labour of control ov production and industry generally, with a view to t progressive elimination of the employing clas Again, "In our view the proper industrial function the State is to nationalise industries, and thereafter entrust their management to the Trades Unions," a "Labour is to take the offensive against capitalism the first opportunity." But, as the League goes on say in Pamphlet 2, par. 10 (c): "In the engineeri and waterside transport industries the competitic rivalry, and disagreement of policy between unions a at present too intense to admit of the creation of a Industrial Council," it would appear to follow th these important trades cannot as yet be taken over a run by a system of guilds worked by unions. It sounds dangerously like Government by Soviet, a the League's proposals lack any interest, so far as I c see, in quality instead of quantity. The products a to be as dull and dreary under the new management under the old. These people will not add to the grac of existence.

The Labour Party's policy, apparently from the pe of Mr. Sydney Webb, follows suit. There is to democratic control of industry, but little change of This means priority orders for tintacks, not for th duration of the war, but the rest of all time. Machine is to be employed to reduce labour as much as possibl because work is an evil to be avoided. What th Labour Party wants is all the proceeds, and is n concerned in improving the standard of quality; know nothing about it. Talks of cheapness, and does n gnise that cheap work cheapens the men who do it. re is too much talk of equality; the individualist em is to receive its death blow, quite in the good Adelphi way, and again one pictures control by a d, jealous of anybody with an idea, or wanting to te works of art. The joyous life is to include as work as possible, and that of the dullest hanical variety, carefully adapted to the intelli- e of the least intelligent member of the crowd, ing to standardised motions. We prefer Mr. ty's doctrines; he is not ashamed to talk of good and beauty, order instead of disorder, and is not ull as these other people.

ittle is known of the policy of the Liberal Party, pt that it is understood they are deliberating as to t constitutes Free Trade, and who is their real der, and the Tories are thinking of electioneering uises, so that they may seem like real wild men. next election should be quite extraordinary, in all these people will be attempting to persuade electorate that they are the only original and iine extremist party.

o summarise the position, it would appear that the ience of development has been as follows: We get beginning of the democratic idea in the nineteenth ury, and the ideal is the possession by the State of he means of production. A start is made in this ction, and it is found that bureaucratic control is and wanting in courage and initiative. The State ing with grandmotherly instincts becomes coer- and Prussian. The Trades Unionist finds there things he *must* do. He begins to be card-indexed numbered. Old-Age Pensions, Health Insurance, have to be subscribed to. One gets a picture in background of a life so regulated that it approaches dom, a deplorable lowering of the standard of all kers, of machinery triumphant.

yndicalism, starting in France, follows, which is to sh the State by a general strike, and begin all over n, the Trades Unions owning the land and the hinery.

r. Penty's first book, on the Restoration of the d System, was published in 1906, and points a r way. As an architect, disciplined to the necessity aying proper foundations, his interest is in the ity and decency of Labour, and the real necessity oing good work again. Thank heaven Mr. Penty t democratic, for he says, "But just as Liberalism d because it had to use the plutocracy as the force which to effect its purpose, so Collectivism must because it has had to make appeal to the crowd."

r. Orage next adopts the idea of the guilds, but es the same more political and revolutionary; his on National Guilds was published in 1914, and wed by "The World of Labour," by G. D. H. (1915), and "Guild Principles in War and Peace," . Hobson (1917). Mr. Cole, who is a moving spirit e National Guilds League, to which reference has made, says: "Plutocracy will beat Democracy ong as the Democrats leave the Plutocrats the ce of weapons." In Guild Socialism the State owns land and means of production, and leases them to Trades Unions, but they have no very high opinion e State. Mr. Hobson says: "The Bureaucrat has er the knowledge nor the skill of the independent strialist," but does not add that it will take the des Unions some time to become equally efficient. Orage says: "Bureaucracy is more incompetent a board of directors." When the guilds take over industry, all the managers, clerks, and inspectors come too, and it is estimated that fifteen guilds own the industries of the country.

here is an interesting note of Mr. Hobson's in h he says: "Whilst I believe that as time goes on standard of living of all guildsmen will tend to oximate, I recognise that a hierarchy is necessary e effective working of the guilds." We can well leave the subject here. If the principle of a hierarchy is recognised, an authority on sacred things, then we are well on to the establishment of a truly aristocratic principle, of rule by the best: which is different from rule by landed interest, or the plutocrat, or the crowd: which will recognise quality and not be dominated by quantity, regarding two hours' machine tending as one's end and aim.

Perhaps the parsons may help us to that "spiritual revolution" which, according to Mr. Orage, "will be necessary as a precedent condition of the economic revolution." In this connection a speech on Labour Problems by the Bishop of Peterborough, in the Upper House of Convocation, is of interest. The Bishop is quite as much alive to the dangers of the situation as the Guild Socialists, and the address, published in the "Church Times," February 15, 1918, is worth reading. In it the chairman of Cammell Lairds is quoted as saying: "Unless industry is really recognised as primarily a national service, in which each individual is fulfilling his function to the best of his ability for the sake of the community, in which private gain is subordinated to the public good, in which, in a word, we carry out our duties towards our neighbour—unless we build on that foundation there is no hope of creating the home beautiful." Which is rather better than some of the proposals of the National Guilds League.

With reference to the excellent letter, signed Licentiate R.I.B.A., published on March 27, 1918, one can hardly agree that, having regard to the land enclosures of the Napoleonic Wars, "no frequency of change of ownership can ever change such wrong into a right." Such change does not justify the original proceedings, but it stops any attempt to penalise the estate of the offender. But Licentiate's arguments seem very sound when he urges that land should be taxed "upon the value of the advantages which possession of each part of land confers upon its owner or holder."

CORRESPONDENCE.

Preparing for Peace.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It is clear to me from reading your editorial comments on my letter published in your issue of the 20th ult. that I have not been sufficiently explicit. When I said that Mr. Quennell "had too little knowledge of the world of labour to understand what the future is likely to bring forth," etc., I did not question his credentials, nor do I differ from his actual statements, for I regard Mr. Quennell's personal attitude towards labour to be an essentially right one. What I was thinking about was labour politics, with which I felt Mr. Quennell was not very familiar, or he would not have acquiesced in the policy of the Maximum Productionists, whose advocacy of "scientific management" as a remedy for our troubles is likely to be tragic in its consequences. It is not generally known in this country that in its home, America, "scientific management" has met with the uncompromising opposition of organised labour, and so there are good reasons to believe that, in spite of the support which has been given to it by certain labour leaders, the Labour attitude here will be anything but conciliatory. Why this should be so will be understood by anybody who reads Professor Jack's book, "From the Human End." Professor Jack there explains that the disruptive tendencies of industrialism are inherent in its quantitative ideal, and demonstrates the connection between it and the war, which he predicts involves the destruction of the present system. Viewed in this light, "scientific management" is seen to be the last stage of our social disease. The Maximum Productionists of the "Morning Post" appear to be bent upon making catastrophe doubly sure. If I were an anarchist I should give them an unqualified support, for I could then promote revolution under the guise of the most impeccable orthodoxy. A more fruitful source of friction has never been devised.

Now it is to be observed that such ideas as maximum production, scientific management, and standardised cottages are all products of the same perverted attitude of mind towards our social problems, and Mr. Quennell is inconsistent in deploring standardised cottages while supporting maximum production. These ideas all stand together, and they will all fall together. They are all opposed to the interests of architecture, and also, I am convinced, to the best interests of the nation, and architects should not accept them as inevitable. For, in spite of the "Morning Post," maximum production is a distinctly arguable proposition. It could, I believe, be successfully challenged by any body of men who were intent upon making their voices heard, for it could be shown that it is based upon considerations of temporary financial expediency and against the permanent interests of society. And this brings me to the need of the profession spending money on propaganda. If architects are to recover their independence, if they are not to be for ever at the mercy of forces which they are powerless to control, they must take collective action to see that their point of view is not ignored. They must exercise vigilance and challenge the ideas which are detrimental to their interests when they are first promulgated, instead of waiting until they become almost irresistible. Such a propaganda, by explaining to the public the social conditions and kind of organisation favourable to the production of architecture, could be used for creating an interest in architecture itself. If there is any truth in Aristotle's assertion that the qualities required to make a lawgiver are in all respects identical with those of an architect, our success is assured. The Labour movement has secured public recognition of its interests by means of propaganda. Why should not architects do the same?

The success of efforts in the direction I have indicated depends of course upon certain conditions. The first is that architects themselves believe that the function of design is one of the first importance. If architects are persuaded that architecture is a matter of supreme importance to the community there is no reason why a market should not be created for it. By means of propaganda this belief could be communicated to the general public, and after a time it would bear fruit. But if the demand thus artificially created is to be translated into an effective demand, architects must frankly recognise the changed social and economic conditions of society. If architects are to secure patronage in the future they must recognise that any demand for their work will express itself collectively rather than individually. Public bodies and voluntary associations more than individuals will be our clients, and this involves the abandonment of that policy of isolation and individualism which has hitherto been the policy of the profession. For public bodies and other collectivities cannot or will not give commissions to private practitioners, apparently because they fear being accused of favouritism. They prefer either to give work out to competition or to organise architectural departments. The latter is the custom with all public bodies who do much building. Both of these methods are unsatisfactory from the architect's point of view. Competitions are undesirable, because, on the one hand, of the waste they involve, and, on the other, because of the insecurity they bring into the architect's life. Architectural departments, on the other hand, give the architect security at the expense of his work and his personal independence.

This brings me to the issue of Building Trade Guilds. Though public bodies could never be persuaded to give commissions to individual architects practisin on their own account, it would be different if archi tects were organised with the workers into guilds, fo public bodies could give work to guilds without incu ring the odium of nepotism. It would be a democrati thing to do. There is nothing Utopian in this sug gestion. The success in the Labour world of th guild idea makes it pretty certain that after the wa guilds will be established. The Industrial Council of the Whitley scheme take the first definite step i this direction. Action upon such lines would save th situation for us. It would be welcome to the Labou movement, who are likely to be the dominating powe in the future.

Let me explain more fully what I mean by this pro posed democratisation of the profession, for it i clear to me from your editorial comments I have no been understood. I not only mean that architect should be more democratic in their personal relation with the building trades, but that they should b members of the same organisation. As I understan it, a Building Trade Guild would consist of all per sons required in the designing and execution o buildings. How many architects there would be t each guild would depend of course on the size of th individual guild. At first I imagine the architec would pursue similar functions to his present ones with the difference that instead of having to inspec the building trade workers he would co-operate wit them. At a later date, by continuous association the differences between architects and builders woul tend to disappear. The building trade workers woul come to know something about architecture, whil architects would come to know more about building In the course of a generation or so we should get bac to the mediæval builder, who understood at the sam time how to build and how to design.

The advantages of such an alliance for architect are manifest. We should no longer be in that uncertain betwixt-and-between position we are in to-day but would acquire a very definite status. Our economi position would be strengthened. But the alliance t be lasting must be mutual and reciprocal. In retur for the undoubted economic advantages which woul accrue to us, we in our turn must be prepared to ope our ranks to such workers in the building trades a showed an aptitude for architecture. Above all architects must seek to interest the building trad workers in a common effort to promote the revival o architecture. There can be no surer way of securin goodwill. For, to quote the words of de Maeztu "Men cannot unite immediately among themselves they unite in things, in common values, in the pursui of common ends."

ARTHUR J. PENTY.

Reconstruction.

To the Editors of THE ARCHITECTS' AND BUILDERS JOURNAL.

SIRS,—At present the energy of the country i mainly expended on work in connection with the war, Ministry of Reconstruction notwithstanding. No ideas however excellent, stand any chance of being put int practice, and beyond the forming of committees, littl or nothing has been done to deal with the vast post-war problems that will have to be dealt with whe peace comes. There is a very real danger of peac coming suddenly upon this country, which will b even more unprepared for it than it was for war, an the vast problems of reconstruction may be rushed a and settled in a slipshod, inconclusive manner.

Of all these problems the housing question is by n means the least. It is very far-reaching: it embraces the whole life of every individual Englishman. Mr. Quennell, in one of his very excellent articles, deals with the question, and points out that the State must ot be allowed to interfere, but each district must find s own solution. (See end of Article II.).

May 1 be allowed to set out my experience of how ocal bodies deal with such matters? I once had the isfortune to be a member of an Urban District Council. True there was no election, the populace enerally being quite indifferent as to the management f their own affairs. Labour was not represented on his council; it was composed almost entirely of local radesmen. I suppose I represented the industrial terests. I remember being amazed at the haphazard ay in which housing problems were discussed. Most f the councillors were property owners. As a matter f fact, housing was not discussed at all. Plans were assed, and so long as they were in accordance with he local by-laws, it was no one's business what was uilt, of what materials or accommodation, or what hey looked like; in fact, nobody "cared a straw." I entured to suggest that some definite plan should be dopted, and pointed out that in parts of the Continent own planning was compulsory and universal. This as met with the general retort that they did not want o know what was being done in Germany.

Later on, in the early days of the war, my firm made n effort to relieve the overcrowding of the small town y laying out and building fifty houses, but the scheme as stopped by the intervention of local speculators, ith the result that at the present time only four ottages have been built, and in such an aimless ashion that one shudders to think what the whole site ill look like if it is ever completed, and the local uthorities say that they have no power to interfere. he proposed Industrial Councils must not confine heir efforts to workshops. Industry occupies only bout one-third of a working man's time—less than ne-tenth of his life—the remainder is spent chiefly in is home.

It is hinted that trade unions look with disfavour on ousing schemes carried out by capitalist interests, and f the private speculator could be prevented from carving up unsuitable sites into 20 ft. plots, it would be n excellent thing. A wider choice of homes and acilities for ownership must be provided. Neither arden cities nor municipal schemes have been very uccessful in dealing with the housing problem.

Surely something definite could be done in this irection now, without waiting for the war to stop. Every local authority must have some idea of what its equirements are and what its destiny is going to be. Why not let us all lay out our own town now, and allow no more building of any kind to be begun unless t conforms to some scheme? It must be universal; it must cover every city, town, and village in the kingdom. It should deal, amongst other things, with the direction of roads, the location of industrial centres in relation to residential districts, location of public buildings, recreation centres, and schools, and comprehensive drainage schemes. Aerodromes must also be considered.

Purely as a matter of detail I would suggest that every proposition should be considered on the metric basis: the whole country should be squared out into metres, as a starting point on which all plans should be based. It would lead to uniformity.

Another question which I think should be considered at the same time is that of inter-urban communication, either by tram or omnibus. It would have a direct bearing on local land values if it were no longer essential for a workman in a country district to live within walking distance of his work; or a housewife, of the shops; or the family, of the cinema. A regular bus service, with a guaranteed passenger list, could be economically run to suit working hours, by the municipality, or the manufacturer, or co-operatively by the users.

Without some such schemes, no solution of the housing problem can be even started, and it will certainly require something more than municipal authority to get things going.

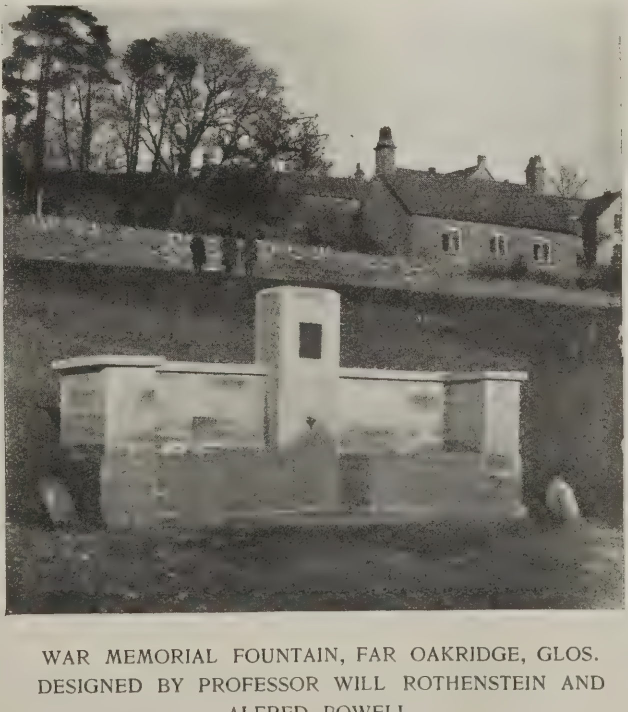
The working-man is no longer going to be satisfied with "twenty feet of frontage," and he must—if nobody else will—compel the Government to consider the matter comprehensively. But it must be entrusted to experts and not to committees or Soviets, each with their own prejudice and inexperience.

My point is this, that these plans can and should be started now. War conditions must not be put forward as an excuse for postponing action, whilst luxury trades are flourishing. Now is the time to find the right solution, instead of putting off everything until the builder is ready to start building, when the chance of concerted planning will be lost, and the old order of muddle and crazy individualism will be re-established, probably for ever.

W. F. CRITTALL.

A WAR MEMORIAL FOUNTAIN.

THE fountain illustrated on this page has been erected in the little village of Far Oakridge, on the Cotswolds, as a memorial to Mrs. Mabel Dearmer and her son, both of whom have died on war service—a coincidence that is perhaps without parallel even in this great war. Deaths of father and son on active service are only too common: but the present case seems unique. The fountain is of stone and is set in the centre of Oakridge Lynch, where, on a steep slope, five roads meet close to the cottage and orchard which, some time ago, were taken over by Mr. Dearmer from Mr. Alfred Powell, the painter of pottery. The fountain, a simple yet dignified piece of work, is the design of Professor Will Rothenstein and Mr. Alfred Powell in collaboration. It has a drinking tap in the centre, with a horse-trough on either side. On the upright block in the centre there is a brass plate, with the names and ages of Mabel and Christopher Dearmer and some commemorative verses. The memorial is not yet complete. Later on, two other brass plates will be inset, one on each trough, and on these will be inscribed the names of all Oakridge men who served in the war.



WAR MEMORIAL FOUNTAIN, FAR OAKRIDGE, GLOS. DESIGNED BY PROFESSOR WILL ROTHENSTEIN AND ALFRED POWELL.

NEWS ITEMS.

A Leeds Town-planning Scheme.

A committee has been appointed to consider and report upon a housing and town-planning scheme on the Middleton estate, Leeds.

Change of Address.

Messrs. Fredk. E. Potter, Ltd., advertising agents and contractors, have removed to Temple Chambers, Temple Avenue, London, E.C.4. Tel. No.: City 7694 (3 lines). Telegrams: "Exultation, Fleet, London."

Exhibition of Drawings by the late Captain Gascoyne.

An exhibition of drawings by the late Captain Charles Gascoyne will be held at 35, Bedford Square, from April 15 to 30. Any members who have suitable drawings for exhibition, executed by Captain Gascoyne, which they are willing to lend, are requested to communicate with Mr. Robert Atkinson at the A.A., who is arranging the exhibition.

South Wales Institute of Architects.

The following have been re-elected officers of the council of the South Wales Institute of Architects: President, Mr. J. Cook-Rees, M.S.A., Neath; vice-presidents, Mr. E. W. M. Corbett, F.R.I.B.A., F.S.A., and Mr. Ivor Jones, A.R.I.B.A.; hon. treasurer, Mr. H. Teather, F.R.I.B.A.; hon. secretary, Mr. C. H. Kempthorne, Licentiate R.I.B.A.; hon. librarian, Mr. G. E. Halliday, F.S.A., F.R.I.B.A.; hon. auditor, Mr. Lennox Robertson, F.R.I.B.A. The Council confirmed the action of the president in circularising all urban and rural district councils in South Wales on the desirability of engaging duly qualified architects for housing schemes and public buildings.

Mr. Joseph Calder, of Arbroath.

Mr. Joseph Calder, who died recently at his residence, The Nook, Rosebery Place, Arbroath, was a native of Letham, Forfarshire, and was the son of the late Mr. John Calder, stonemason. Deceased chose to follow the same trade, and after his apprenticeship spent a few years in the United States. Returning to Scotland, he, along with his brothers James and David Calder, under the name of Calder Brothers, set up as builders in Arbroath, and the business became one of the most extensive in the district. The firm also carried on business as quarriers at Balgavies and Tillywhanland, and deceased for many years supervised this department.

War Wages Muddle.

Complaint of "ill-considered interference" by Government officials is made in a statement issued by the London Master Builders and Aircraft Industry Association. Since the war, they point out, the labourers' wages have been increased by one-half and skilled men's by one-third. Practically all workmen are working overtime, and for a 60-hour week the skilled trades are receiving £4 and labourers £3. Certain Government departments, however, have adopted the "disconcerting and bewildering course" of giving special allowances to certain trades, while other trades on the same work have no such privilege. Travelling allowances and pay for "wet time" are cited. Added to this, the recent 12½ per cent. bonus has now been introduced into the building trade on certain contracts. They understand that this was never intended to apply to building at all. The result is thus illustrated: "The workmen in a certain joiner's shop, who are nailing together rough packing-cases, are entitled, under existing Government regulations, to 12½ per cent. higher wages than their fellow-workmen on adjoining benches, who are making hardwood joinery to reinstate air-raid damage." The association urges the prompt establishment of a central authority to determine some definite rate of wages for each trade engaged on munition works.

Less House-Painting.

A War Cabinet Priority Committee has been set up to deal with building schemes which are urgently needed in certain industrial districts to make good the growing difficulties of housing. The committee is met at every turn by the paramount need of economy in the use of building labour and materials. It is strongly urged that great relief would be afforded by the postponement of the painting and redecoration of houses, which forms an important part of the national spring-cleaning. If householders resolved to forgo what in many cases is regarded as an annual renovation, they would make available more of the scanty supply of labour for really necessary building work of national importance.

NAVAL ARCHITECTS ON CONCRETE SHIPS.

The third and last day of the recent meetings of the Institution of Naval Architects was mainly devoted to papers dealing with concrete as a material for ship construction. The fascination of discussing a new idea was apparent, and the divergency of the views expressed served as a reminder that, even now, success was problematic.

Reinforced concrete is practically an unknown substance so far as ship construction is concerned. Its main advantages are that a smaller quantity of steel is required to produce unit carrying capacity; while it does not call for the same amount of skilled labour as would be required for a steel vessel. The disadvantages of the material are mainly that the weight of the vessel itself is comparatively high, and that, as already mentioned, its reliability remained to be demonstrated. Many critics anticipate that concrete will fail in actual sea-going vessels due to excessive working taking place between the steel reinforcements and the concrete. In order to demonstrate, by actual trial, the suitability of this material for sea-going vessels the United States have built a large steamer of reinforced concrete. This vessel is to be towed at sea, and the experiment is being anticipated with considerable interest on both sides of the Atlantic.

In placing orders for a considerable number of barges, tugs, and other small craft to be built of reinforced concrete, the Admiralty have shown a commendable spirit. They have taken risks which only the exigencies of the present situation can justify. Concrete ships, wood ships, steel ships, all are urgently required by the nation, and it is to be hoped that the marked impression created by the week's deliberations will remain until the danger is removed.

THE ROYAL ACADEMY AND WAR MEMORIALS.

The following announcement is issued by the Royal Academy of Arts:

In response to requests for advice from various quarters the Council of the Royal Academy have appointed a committee to consider war memorials, and the following suggestions are offered by this committee to those who are considering such memorials:

1. Designs should be obtained either by calling in a competent artist, or by competition; and in the event of a competition being held, whether open or limited, a professional artist should be employed as assessor, who should be consulted as to the site and the conditions of the competition.

2. The site of the memorial, especially if in the open, is of vital importance. Any odd place will not do, and advice should be taken as to the suitability of the site before designs are obtained. In large towns, for instance, a memorial should not be so placed as to obstruct traffic; on the other hand, it should occupy a position sufficiently conspicuous to be worthy of its object; and the value or disadvantage of existing buildings as a background should be considered in deciding its position.

3. Where the memorial is to take the form of sculpture or architecture the question of material should be determined (a) by the amount of money available, e.g., for bronze, marble, stone, or wood; (b) by local considerations where these exist. If, for example, there is a suitable and durable local stone this should be used in preference to stone imported from a distance; and if such stone is used due account must be taken of its qualities in the design.

4. In smaller towns or villages the setting of the memorial, the approaches to it, and its immediate surroundings should be carefully considered, and the cost of laying out the site, when necessary, should be included in the scheme. The effect of a memorial is often entirely destroyed by the want of a careful laying out of the site.

5. Where memorials are proposed for the interior of churches or public buildings, whether in sculpture, architecture, stained glass, mural paintings, votive pictures, tapestry rolls of honour, or wall tablets, careful regard should be paid to the scale and character of the architecture of the building and to any adjacent monument.

6. The lettering of all inscriptions should be carefully studied, and should be legible. A bold Roman type, or the Italian lettering of the sixteenth century based on it, is the type most suitable.

7. In all memorials simplicity, scale, and proportion should be aimed at rather than profusion of detail or excessive costliness of material. It is the imaginative and intellectual quality of the work that gives it its final value.

The Committee would be willing to give further advice in particular cases if called upon to do so. Inquiries should be addressed to the Secretary, Royal Academy, Piccadilly, London, W.1.

EDWARD J. POYNTER.
ASTON WEBB.
HAMO THORNYCROFT.
THOS. BROCK.
FRANK DICKSEE.
REGINALD BLOMFIELD.
CHARLES SIMS.

WAR·BVILDINGS·SECTION

PLANK CONSTRUCTION IN MILITARY CAMP WAREHOUSES.

BUILT-UP structural members are used extensively in the frame warehouses at U.S. Signal Corps camp, "somewhere America," which are typical of similar ructures to be built at several other army mps. The reason for using such embers in place of solid timbers is the reater ease and rapidity of assembling id erection.

The typical building is a one storey strucre, U-shaped in plan, 832 ft. long over l. The two legs or sheds are each 112 ft. ide, and are connected at one end by a ructure of the same width. The height each shed is 16 ft. at the sides and 18 ft. the centre. In the 48-ft. court are two ub-tracks spaced 13 ft. c. to c. and two -ft. platforms, the latter connected at the ner end. The floors and platforms are concrete, and concrete walls extending the floor level carry the outer walls of e building. The interior columns rest pon concrete pedestals.

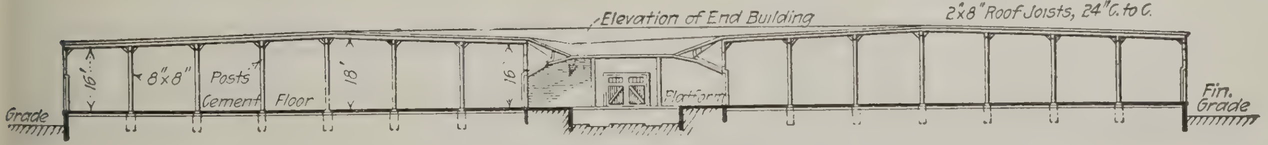
Plank construction is used almost exclu-vely, beams and other large members eing built up of planks, and the posts eing the only large solid timbers. The osts, spaced 16 ft. in both directions, are by 8 in. except that those in the end walls are 6 by 8 in. These carry longitudinal girders, 8 by 12 in., built up of four 2-in. planks, and formed in lengths of 16 ft. Across these are the plank rafters or roof joists, spaced 2 ft. c. to c.; these are doubled over the posts. Upon the rafters is the sheathing of $\frac{7}{8}$-in. plank, laid longitudinally and covered with composition roofing.

Rigidity of the structure is ensured by securely attaching the posts to the foundations and the roof framing. Each post is anchored to its pedestal by a U-shaped stirrup, having its sides bolted to the post and its lower portion embedded in the concrete. At the head of the post, kneebraces are provided in both directions, two braces connecting the post with the longitudinal girder and the others connecting it with the transverse roof joists. Single kneebraces at 16-ft. spacing connect the wall posts with the rafters. Additional kneebraces are used along the walls next to the railway siding to resist the thrust of the canopy roof over the loading platforms. The studs in this side wall and the roof joists in the first bay on this side are doubled for the same purpose.

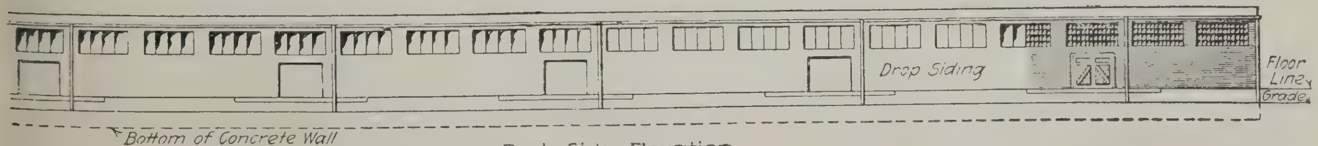
The canopy roof is carried by inclined braces framed against corbels on the wall posts, and each having its outer end held by a tie-rod anchored to the double joists of the roof. Upon these braces rests a longitudinal girder built up of four 2 by 8-in. planks, and having a wedge-shaped strip to support the ends of the rafters. These are spaced 24 in. c. to c., and have their upper ends spiked to the roof rafters. The canopy has a sheathing of 1-in. plank covered with composition roofing.

The walls have studding of pairs of planks, spaced 24 in. c. to c., and carrying a wall-plate upon which the roof rafters rest. The studs on either side of each doorway carry a built-up lintel. The outer covering is a single course of drop siding spiked to the studs.

Doorways 10 by 8 ft., spaced 32 ft. and 64 ft. c. to c. are placed in the side walls. These are fitted with sliding doors carried by barn-door hangers running on a bar attached to the inside of the lintel. Between and over the doorways there are large window openings. The upper windows have stationary sashes, but with one pivoted sash in each bay for ventilation. The pivoted sashes are connected and operated in groups. The door transoms



Transverse Section



Part Side Elevation

TIMBER WAREHOUSE FOR MILITARY CAMPS: SECTION AND ELEVATION.

are pivoted. For the offices, the windows have vertically sliding sashes and are covered with wire screens. The exterior of the walls is given two coats of paint.

Around the building extends a 40-ft. concrete driveway, having a high wire-mesh fence on the outer side. The fencing is attached to 3½-in. iron posts, 10 ft. apart, and triangular caps on these carry lines of barbed wire forming a ridge that effectually prevents fence climbing. Entrances to the driveways and track space are fitted with steel-frame gates covered with wire mesh and topped with barbed wire. The driveway is dished or concave, and drains to cesspools having sewer connections.

For fire protection the Middletown warehouse has a 75,000-gal. steel tank on a 75-ft. tower, with an 8-in. connection to the city water mains. An 8-in. main extends under each side driveway, the two being connected by cross-lines of the same size. Laterals of 6-in. pipe serve hydrants inside the building.

Yellow-pine is used for these warehouses, and the assumed maximum fibre stress for this is 1,800 lb. per sq. in. The assumed live-load on the roof and canopy is 25 lb. per sq. ft. In the hangars at the aviation camps, provision is made for suspending the aeroplanes from the 65-ft. roof trusses, and in such case the trusses are designed to carry an additional load of 2,000 pounds.

These warehouse buildings were designed by Mr. Albert Kahn, architect, Detroit, and the plans were made so complete as to framing and details that they furnished sufficient information for the cutting and assembling of the lumber.—Our reproductions are from the "Engineering News-Record."

CONTROL OF BUILDING BRICKS.

The Minister of Munitions, in exercise of the powers conferred upon him by the Defence of the Realm Regulations and all other powers thereunto enabling him, hereby orders as follows:

1. No person shall, as from the date hereof, until further notice, sell or, except for the purpose of carrying out a contract in writing existing prior to such date for the sale of building bricks, deliver any building bricks of any description except under and in accordance with the terms of a permit issued under the authority of the Minister of Munitions, or purchase or, except for the purpose of carrying out such a contract as aforesaid, take delivery of any such building bricks from any person other than the holder of such a permit and in accordance with the terms thereof.

2. Notwithstanding Clause 1 hereof, no such permit shall be required for the sale, purchase or delivery of any building bricks to be used exclusively by the purchaser in the erection or carrying out of any separate and independent building or work not involving in such erection or carrying out the use of more than 20,000 bricks, or in the completion of any building or work lawfully commenced prior to the date hereof where such completion does not involve the use of more than 20,000 bricks as aforesaid provided always that in each of such cases the purchaser shall have given to the seller at or before the time of purchase and delive a declaration in writing signed by the pu chaser specifying the precise nature of tl work for which such bricks are requir and the place where the same are to l used, and that the bricks to be purchas are for the purposes mentioned in th clause and for no other purpose.

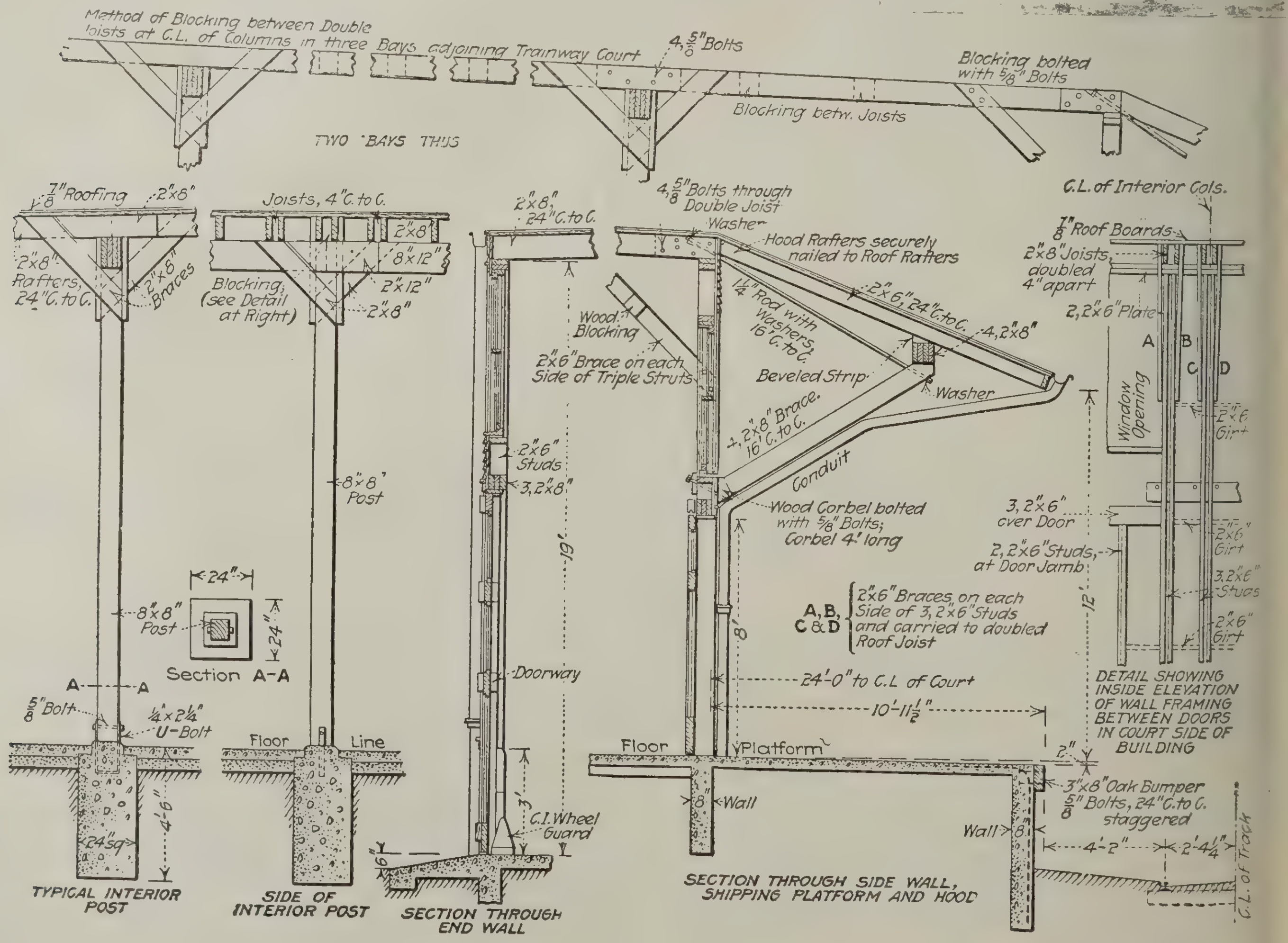
Every declaration made for the abo purpose shall be true and accurate in a respects.

3. Every manufacturer of buildin bricks shall comply with all such dire tions regarding the transfer of delivery the bricks from time to time manufacture by him as shall from time to time be give to him on behalf of the Minister of Mun tions by the Controller of Buildin Bricks, Ministry of Munitions.

4. Every person manufacturing having in his possession any stock building bricks shall furnish to the sai Controller such returns as the said Co troller may from time to time direct co cerning output, stocks, deliveries, cost production, prices, or any other inform tion relating to such building bricks.

5. All applications for permits unde this Order shall be made to the Controlle of Building Bricks, Ministry of Munition Whitehall Place, London, S.W.1, an marked "Building Bricks Permit," an every person selling, purchasing, delive ing, or taking delivery under any suc permit shall observe and perform all th conditions subject to which such perm shall be granted.

6. This Order may be cited as th "Building Bricks Control Order, 1918."


Method of Blocking between Double Joists at C.L. of Columns in three Bays adjoining Trainway Court
4, 5/8" Bolts
Blocking bolted with 5/8" Bolts
Blocking betw. Joists
TWO BAYS THUS
7/8" Roofing
2"×8"
2"×8" Rafters, 24" C. to C.
2"×8" Braces
Joists, 4" C. to C.
2"×8"
8"×12"
2"×12"
2"×8"
Blocking, (see Detail at Right)
8"×8" Post
24"
24"
8"×8" Post
Section A-A
A
A
5/8" Bolt
¼"×2¼" U-Bolt
24" sq.
4'-6"
Floor Line
TYPICAL INTERIOR POST
SIDE OF INTERIOR POST
2"×8", 24" C. to C.
Wood Blocking
2"×6" Brace on each Side of Triple Struts
2"×6" Studs
3, 2"×8"
19'
Doorway
3'
C.I. Wheel Guard
6"
SECTION THROUGH END WALL
4, 5/8" Bolts through Double Joist
Washer
Hood Rafters securely nailed to Roof Rafters
1¼" Rod with Washers, 16' C. to C.
2"×6", 24" C. to C.
4, 2"×8"
Beveled Strip
Washer
4, 2"×8" Brace, 16' C. to C.
Conduit
Wood Corbel bolted with 5/8" Bolts; Corbel 4' long
A, B, C & D
2"×6" Braces on each Side of 3, 2"×6" Studs and carried to doubled Roof Joist
8'
24'-0" to C.L of Court
10'-11½"
Floor
Platform
8"
Wall
Wall
8"
3"×8" Oak Bumper
5/8" Bolts, 24" C. to C. staggered
4'-2"
2'-4½"
C.L. of Track
SECTION THROUGH SIDE WALL, SHIPPING PLATFORM AND HOOD
C.L. of Interior Cols.
7/8" Roof Boards
2"×8" Joists, doubled 4" apart
2, 2"×6" Plate
A
B
C
D
Window Opening
2"×6" Girt
3, 2"×6" over Door
2, 2"×6" Studs, at Door Jamb
2"×6" Girt
3, 2"×6" Studs
2"×6" Girt
12'
2"
DETAIL SHOWING INSIDE ELEVATION OF WALL FRAMING BETWEEN DOORS IN COURT SIDE OF BUILDING

TIMBER WAREHOUSE FOR MILITARY CAMPS: DETAILS OF CONSTRUCTION.

COTTISH HOUSING CIRCULAR.

The following circular has been issued y the Scottish Local Government Board:

Edinburgh, March 18, 1918.

'rovision of Houses for the Working Classes After the War.

Sir,—1. I am directed by the Local ;overnment Board to advert to their 'ircular of August 10, 1917, in regard to ie provision of houses for the working lasses at the conclusion of the war.

2. In that Circular it was stated that the ;overnment recognised that it would be ecessary to afford substantial financial ssistance from public funds to those local uthorities who were prepared to carry irough, without delay, at the conclusion f the war, a programme of housing for ie working classes approved by the ;oard, but it was not possible at the time › indicate the form which the financial ssistance from the State would take or the xtent of it. The Board have been in ommunication with the Lords Commisioners of His Majesty's Treasury on the ubject, and, in regard to the financial sistance which may be granted by the tate to local authorities carrying out ousing schemes under Part III. of the Iousing of the Working Classes Act, 1890, s soon after the conclusion of the war as unds are available or within a reasonable eriod thereafter, their lordships have laid own the following principles, viz.:

a) The full cost of the scheme should, in the first instance, be met out of the funds of the local authority by means of a loan to be raised by them.

b) For a period of years, which their lordships think should not be less than seven, the necessary State assistance should be given in the form of a grant of a percentage of the loan charges sufficient to relieve the authority of 75 per cent. of the estimated annual deficit as approved by the Board.

c) The deficit in each case should be estimated, with due regard to the actual increase in the cost of construction in the particular locality, on the basis of the estimated annual expenditure and the estimated annual income over a period of years.

d) The interest charge on loan moneys should be taken at the amount actually paid where loans are raised from an outside source specifically for the purpose or at the current market rate where the money is provided from accumulated funds in the hands of the local authority.

e) At the end of the period above referred to, the property will be valued and 75 per cent. of the excess (if any) of the amount of the loan outstanding over the then value of the property will be met by the State either by writing off a portion of the outstanding liability (if the money was borrowed from State sources) or by the Government undertaking responsibility for the appropriate proportion of the loan charges for the remainder of its currency.

f) Any loans by the State for the purpose of assisted schemes will be made at the full market rate of interest current from time to time, and not at the preferential rates ordinarily allowed for housing loans, in order (1) that the whole of the State assistance may be given under one head, and (2) that local authorities may be encouraged to borrow on their own credit rather than to have recourse to State capital funds.

(g) The Lords Commissioners of the Treasury have further agreed that, as cases might arise in which the sharing by local authorities in the contemplated deficit even to the extent of 25 per cent. might prove a somewhat heavy burden, the Board should have discretion in cases in which 25 per cent. of the deficit in respect of any scheme would exceed the produce of a rate of a penny in the £ on the area chargeable, to increase the grant beyond 75 per cent., but subject to the condition that the amount of the deficit to be borne by the local authority shall not be reduced below the produce of a rate of a penny in the £.

3. The Board trust that local authorities, with this information before them, will at once proceed to a consideration of the schemes necessary to secure the provision of adequate housing for their districts. The Board are aware that many local authorities have had their administrative and technical staffs much reduced owing to exigencies of the war, but it is hoped that, nevertheless, every endeavour will be made now to prepare suitable schemes, so that whenever circumstances enable building operations to take place, the work can be begun with the least possible delay.

4. In communicating their proposals for financial assistance, their lordships expressly ask that it be made quite clear that the precise date at which the execution of any schemes approved by the Board can be commenced must depend on circumstances which cannot at present be foreseen, and that the financial position may be such that it may be necessary to give precedence to the more urgent cases, even to the exclusion for the time being of the less urgent. It is necessary to emphasise the fact that it is only in the very exceptional circumstances of the national emergency that the Government are proposing to give substantial assistance to local authorities for the execution of housing schemes.

5. The returns received in response to the Board's Circular of August 10 last show that a considerable number of local authorities are prepared, subject to adequate financial assistance being given, to frame and submit housing schemes. The Board have reason to believe, however, that, as regards some areas where it is stated there is no necessity for additional houses, a careful housing survey would reveal that new houses should be provided. If the local authorities of these areas, on a reconsideration of their needs, find that additional houses are required, they should report to the Board without delay their revised decision, stating at the same time the number of houses they are willing to provide.

6. As already indicated, a condition of giving the financial assistance will be that the scheme shall be approved by the Board. Such approval shall include approval of the site chosen for the erection of the houses, of the cost of the land and of the conditions on which the land is acquired, of the lay-out of the site, of the plans, specifications, and estimates, of the rentals proposed to be charged, and of the estimated annual maintenance expenditure on the scheme.

7. The Board will require to be furnished with the information, plans, etc., indicated in the form and balance-sheet which they hope to issue at an early date. In framing the balance-sheet the amount of the loan charges should be calculated on the rate of interest at present in force for loans by the Public Works Loan Commissioners in respect of housing, namely, 5½ per cent. Any necessary correction on this point, as well as in regard to the amount of the capital expenditure in connection with the scheme, can be made at a later stage. The Board recognise that, in the first instance, when the scheme is submitted for their approval, only an approximate estimate can be given in regard to the amount of such expenditure.

8. The scheme must be prepared in relation to a particular site or sites which the local authority have selected as being the most suitable that are available for the purpose. Before arrangements are finally made for acquiring any site, the local authority should obtain the Board's formal approval to the site proposed. The scheme should be so framed that as far as reasonably possible not more than twelve houses should be placed on an acre of land, and the scheme should provide for houses of at least three apartments. Except in very special circumstances, the Board will not approve of a scheme providing for the erection of houses of a smaller size.

9. In view of the restrictions placed upon the raising of loans by local authorities during the continuance of the war, I am to say that where it is contemplated to purchase land instead of feuing it, it is desirable that local authorities should endeavour to make such arrangements as will not involve the payment of the purchase money until after the war, and that any provisional agreement entered into by the authority should stipulate that the purchase money should not be required to be paid until the board have consented to the borrowing thereof. In only very exceptional circumstances could the Board consent to loans for the purpose during the war, and then only for very small amounts or for a proportion of the purchase money.

10. If, in the framing of their scheme, a local authority in whose area building byelaws are in force find that any amendment of these byelaws is desirable, I am to say that the Board will be prepared to give favourable consideration to any suggested amendments that may be submitted to them. The Board also reserve to themselves, as a condition of approving any scheme, the right to require a local authority to amend their building byelaws in such respects as the Board consider desirable. The local authorities of burghs should, in framing their schemes, keep in view the powers contained in Section 39 of the Burgh Police (Scotland) Act, 1903, to relax certain statutory rules.

11. It will be a condition of any financial assistance given by the Government that the erection of the houses shall be commenced within two months from the date of the Board's consent to any loan, and that the houses shall be completed by a specified date, and that such number of houses as the Board determine shall be completed within twelve months from the date of the commencement. Provision will, however, be made in the conditions for an extension of these dates where circumstances necessitate this.

I am, Sir, your obedient servant,
JOHN T. MAXWELL, Secretary.
The Clerk to the Local Authority.

[A circular to similar effect, addressed from Whitehall to English local authorities, was published on page 157 of our issue for 3rd April.]

COMPETITIONS.

Cottages and "Living-in Quarters" for Agricultural Labourers in Wales.

The Welsh Housing and Development Association being interested in the housing of agricultural labourers in Wales, and funds having been generously placed at its disposal for the purpose, has requested the General Committee of the forthcoming National Eisteddfod to add to its programme a competition in design of cottages and "living-in quarters," and the Eisteddfod Committee has accordingly decided to invite such designs under the following conditions:

General Conditions.

The competition is open to any British subject, excepting in Class C (as to which See 4 (d) below), the buildings of which designs are sent in are to be suitable for erection in such part or parts of Wales as shall be selected by competitors and marked on the designs. Wales shall be deemed to include Monmouthshire. So far as practicable, materials locally available shall be specified, and so far as is consistent with economical construction and artistic effect, local traditions of building should be observed. Regard must be had, however, to the prevailing and probably continuing shortage of various materials, and provision should be made for substitutes where necessary to facilitate and cheapen construction. The designs submitted will be judged upon the basis of the combination of three main factors:

(1) Convenience of planning.

(2) External design in relation to local colour and traditions.

(3) Economy of design, with due regard to soundness of construction.

The designs will be adjudicated upon by assessors, including at least one woman, to be appointed by the Executive Committee of the Welsh Housing and Development Association, and their judgment is to be accepted as final.

Designs of Cottages.

A premium of £50 is offered for the best design in each of three classes or types of cottages, suitable for agricultural labourers in Wales. Particulars of and special conditions relating to cottages, of which designs may be submitted in any or all of the classes specified:

(a) Class A: Living-room, scullery, and three bedrooms. (Prize given by Sir Alfred Mond, Bart., M.P.)

Class B: Living-room, parlour, scullery, and three bedrooms. (Prize given by E. T. John, Esq., M.P.)

Class C: Accommodation at the discretion of competitors, but with a minimum of three bedrooms, planned entirely or mainly on one floor. (Prize given jointly by Lord Boston and R. J. Thomas, Esq., Garreglwyd, Holyhead.) (b) The cottages in Classes A and B are to be treated as broad or double-fronted and of two storeys. (c) In Classes A and B a block of four houses shall be shown, of which one of the end houses and the house next adjoining are to be planned in detail, the others in outline only. (d) The design in Class C should be of a type specially suitable for Anglesey, and in harmony with the best cottage-building traditions of that county. (e) In each of the three classes, larder, fuel store, earth closet, cupboards, etc., are to be provided. The position of w.c. is to be carefully considered and convenient access shown. Outbuilding to be provided to serve as store for garden produce and tools. (f) All projections beyond the main building are to be avoided as far as practicable. (g) The minimum height of rooms to be 8 ft., but a cove not exceeding one foot (vertical) may be shown in upper storey. (h) The minimum floor area of living-room is to be 165 ft., and of smallest bedroom 80 ft. —in each case net, clear of all projections. (i) Each house is to be furnished with a fixed bath. No public water supply is to be assumed, and arrangements for collecting and storing rain-water and the supply of hot water are to be indicated. (j) It is to be assumed that access to the cottages is only from the front, and that the site is practically level and one-eighth of an acre in extent. (k) The drawings are to consist of plans of each floor, one or two sections, as required, showing staircases and two elevations, all drawn to a scale of one-eighth of an inch to the foot, and a site plan showing the disposition of the houses, boundary fences, etc., drawn to a scale of 20 ft. to the inch.

Designs of Living-in Quarters.

A premium of £10 (contributed by Lady Boston) is offered for the best design of "living-in quarters" for agricultural labourers. General description of and special conditions relating to "living-in quarters": (a) The building to be designed for the occupation of unmarried men, to form part of the ordinary equipment of a Welsh farm, and to be erected in close proximity to the farmhouse. (b) The accommodation is to consist of common sitting-room, with tiled or wood-block floor, good fireplace, bookshelves, and other fittings, and of floor area of not less than 165 ft.; four cubicles with wood flooring, each with separate door opening directly into a passage and of superficial area of not less than 90 ft.; lockers for clothes, etc., arranged in passage or elsewhere; washing facilities, including fixed bath; coal and wood store in convenient position in relation to sitting-room, earth-closet, and bicycle shed outside. (c) More than four cubicles may be shown, in which case the floor area of sitting-room must be proportionately increased. (d) Head-room to be not less than 8 ft. (e) The design to be of the simplest description and the building to be one-storeyed. (f) No public water supply is to be assumed, and arrangements for collecting and storing rain-water and the supply to bath are to be indicated. (g) The drawings are to consist of a ground plan, one or two sections, and two elevations, all drawn to a scale of one-eighth of an inch to the foot, and a site plan drawn to a scale of 20 ft. to the inch.

Further General Conditions.

The lighting and ventilation of all rooms, passages, and staircases are to be specially considered and dealt with. The positions of all principal pieces of furniture, such as dressers, tables, and beds, together with opening of doors, points of the compass, and dimensions of rooms, are to be marked. No public sewer is to be assumed to be available, and the drainage arrangements are to be generally indicated on ground and site plans. The drawings are to be prepared generally on the basis of the latest model code of by-laws for rural districts issued by the Local Government Board, but any variations therefrom may be made at the discretion of competitors, subject to their being indicated by a note lettered on the drawings. Details or perspectives may be supplied at the discretion of competitors. No alternative drawings will be allowed. All drawin are to be on half "double elephant" she (unmounted), a separate sheet being us for each class, and are to be in (black) li only, without washes (excepting for a bla wash over window openings), and to ha walls blacked in. Notes of materials, tings, and of special features are to lettered on the drawings, together with t cubic contents of each house, measured the usual way. No specification or rep is required. Designs are to be prepared strict accordance with these conditio and any design which does not so confo will be excluded from adjudication. (this point the assessors are to be the so judges. Designs shall be delivered flat in box, or between stiff casing, with offici label affixed, carriage paid, and mu reach the General Secretary of the Eisted fod (Mr. Philip Thomas, Glynifor, Neat not later than June 7, 1918. Each desi is to bear a nom-de-plume only, but t name and address of the competitor in sealed envelope shall be enclosed with ea set.

It is to be understood by competito that the payment of the premiums conve the absolute possession of the designs, i cluding all copyright or other rights, to th Welsh Housing and Development Associ tion, and that the Association will be liberty to make any use whatever of th designs, and to publish them with th names and addresses of the authors. Th fact of a design being premiated shall n prevent the author from making use of in his practice if he so desires.

Town-planning Competition.

The programme of the National Eistedd fod includes a competition for the lay-ou on town-planning lines of a local buildin area, a prize of £5 5s. being offered by th Welsh Housing and Development Associa tion.

THE FATE OF ST. OLAVE'S, TOOLEY STREET.

In the House of Lords, on March 14 Lord Parmoor, in the adjourned debate or the second reading of the St. Olave's Church (Southwark) Bill, stated that the promoters had come to an agreement with the London County Council under which St. Olave's Church would be removed to a new site. It was said to have been erected by a pupil of Wren's, and the desire was to maintain its architectural specialities by moving it stone by stone to a new site. The sum of £5,000 would be contributed to the Open Spaces Fund, of which the L.C.C. were the guardians, and a suitable memorial would be put into the wall of the building which was to be erected on the church site. He advocated this scheme as against a proposal of Viscount Bryce, who had an instruction to the Committee providing that the disused burial-ground attached to the church should be preserved unbuilt upon and as an open space, with access thereto from Tooley Street. He (Lord Parmoor) suggested that the Bill should be sent to the Committee without the instruction, and that the supporters of Lord Bryce's proposal should put their views before the Committee.

The Bill having been read a second time,

Viscount Bryce moved the instruction. He said the spot in question was closely connected with the history of London. Here in the eleventh century a famous

(*Continued on page* xi.)

(*Continued from page* 172.)

tle took place between the Norwegians those who were holding London lge. It was a spot from which a able view of the river was to be obied, and it was the only open space in mondsey which abutted on to the river. gift of £5,000 suggested would not be any benefit to the people of Bermond- who might find that it was applied the provision of an open space five or miles away. The Earl of Plymouth ported the instruction. The Marquess Crewe said the London County Council ched great importance to the retention he name. In fact, the name was, he told, enshrined in the name of Tooley et, which was really St. Olave's Street. the Council was primarily interested he question of the open space. If the ruction were carried the Bill could not eed, as no money would be left for the rection of the church elsewhere. The op of Southwark said the object of the was to husband the resources of the rch to the advantage of the Church and community, and to use what was not ired in one place in another where it urgently required. His desire was the whole scheme should be sent to Committee. If the instruction were ied it would preclude even the posity of considering any alternative ngement. The Earl of Meath said church and ground was not without e because of an Act of Parliament. pass the Bill meant presenting the rch with money, which would not be t in Bermondsey, but somewhere else. London 115 burial-grounds had been t over rior to 1884, but only one had lost since that date. On a division instruction was carried by 32 votes to

view of what the Bishop of Southwark , it would appear that Lord Bryce's ruction will save Flitcroft's church demolition.

IFFICULTIES OF LOAD DISTRIBUTION.

nusually difficult conditions of load ibution have to be met in a reinforcedrete warehouse and factory building being erected in Chicago. The buildis of five storeys with a basement, and vers an area of 45 ft. by 75 ft. In the ry large punch presses will be in ation, but the heaviest load will be due e storing of steel plates and bars. For latter purpose a width of 12 ft. along ne side of the second floor has been aside, and the load will be 2,000 lb. square foot. Support is provided by concrete partition walls, which are on foundation girders and extend up e bottom of the heavily loaded portion he second-storey slab. In the baset and on the first storey these walls are ed to support racks for the storage of rods, the racks consisting of rows of y pipes embedded in the walls and ecting 18. in. on either side. This ing for heaviest loads makes up 33 per of the whole area. The remaining er cent. of the second storey and the e area of the first storey are designed a load of 1,000 lb. per square foot, the allowed load for the upper three s is 600 lb. per square foot. The dation, a concrete slab laid directly the clay, is surmounted by girders ing in both directions, the interior nns being located at the intersections ese foundation girders.

HOUSE-PLANNING AND GAS INSTALLATION.

Any housing scheme (says Mr. Thomas Newton, in the "Gas World") which does not include provision for gas lighting, cooking, warming, and water-heating, either for immediate use or for ultimate requirements, cannot be regarded as satisfactory from the gas industry's point of view. Far better will it be to consider each housing scheme not only from the immediate, but also from the ultimate, standpoint, and treat it accordingly, rather than simply to deal with its minimum requirements. In this respect we can perhaps turn to good account the experiences of the past. When the slot installation system was first adopted it was regarded as a bold venture. But it was subsequently proved to be a sound commercial proposition; and to-day it is firmly established in the general scheme of things. This raises the question as to whether or not the benefits arising from this system cannot be still further extended; or, alternatively, whether or not some inducement could not be offered in a housing scheme to prospective consumers with a view to the more extended use of gas.

In the former slot installations, some gas undertakings provided (say) two lights and a boiling-ring, griller, or cooker, as the case may be, and piped the houses accordingly. Then in the event of any other apparatus, such as gas-fires or a water-heater, being required, either the lighting arrangements are necessarily and hopelessly upset, or a general duplication of pipes is unavoidable. In a hiring proposition, this means not only additional expense as far as the piping is concerned, but also a much greater expense on account of labour than would otherwise be the case if ultimate, as well as immediate requirements were taken into consideration. It is a simple matter in a new house to make adequate provision for additional apparatus which will almost certainly be required in the near future; but it is an entirely different matter to make this provision when floors and carpets are laid, walls plastered, decorations completed, furniture arranged, and the occupier comfortably settled. In the former case, what might be "lost on the swings" would doubtless be "made up on the roundabouts."

The present shortage of domestic labour has resulted in a wholesale conversion of many householders to the use of such labour-saving contrivances as gas-cookers, gas-fires, gas-heated water appliances, etc.; and if only architects could be induced to realise the futility of planning coal-ranges that are not required, coal-grates that will be hidden by gas-fires, and coal-fired washing-coppers that are likely to be discarded in favour of gas-heated wash-boilers, a great and very beneficial advance would be made. Nothing surely is more uneconomical than to go to the initial expense of providing, and solemnly fixing, things that are falling into desuetude, especially when the cleaner, more convenient, and more labour-saving gas apparatus is preferred. There has been much discussion of the smoke problem, fuel economy, and kindred subjects. Here, then, is an excellent opportunity of accomplishing the object in view. A little practical co-operation on the part of architects, builders, and gas undertakings would do more to solve these problems than can be readily imagined.

It is a great mistake to suppose that fuel economy, a cleaner atmosphere, and other similar desirable features must of necessity be produced on a grand scale or not at all. One has only to recollect the conditions that prevailed (say) a couple of decades ago, and compare them with the conditions that obtain to-day, in order to appreciate the progress that has been made in this direction already. But the pace needs accelerating; and by planning for the use of every conceivable kind of gas apparatus in the dwellings of the future we make sensible improvement in the life and environment of the people.

SOCIETIES AND INSTITUTIONS.

Royal Institute of the Architects of Ireland.

At a recent Council meeting of this Institute, held at 31, South Frederick Street, Dublin, Mr. A. E. Murray in the chair, reports from the Professional Practice, Library, and Examination Committees were received and adopted, and it was decided to offer a prize value two guineas to the successful candidate who obtained the greatest number of marks at the forthcoming examination.

National Association of Master Heating and Domestic Engineers.

At the fourteenth annual general meeting of the above association, which was held recently in the Holborn Restaurant, London, Mr. Ernest Griffiths, M.I.Mech.E., of Messrs. Dargue Griffiths and Co., Ltd., Liverpool, the retiring president, delivered an address on the work of the association, which had greatly increased during the past year. Mr. Frank Biggin, of the Brightside Foundry and Engineering Co., Ltd., Sheffield, was elected president for the coming year, and explained the programme in hand for the immediate future, which included the setting up of a Joint Industrial Council for the heating and domestic engineering trade.

Glasgow Institute of Architects.

The annual general meeting of the Glasgow Institute of Architects was held last week at 21, West George Street, Mr. John Watson, F.R.I.B.A., president, in the chair. The secretary (Mr. C. J. MacLean) submitted the report of the Council, which showed that the membership is as follows: 106 Fellows, 62 Associates, and 38 lay and student members. The Council would, it stated, view with great concern any proposal to obliterate the church front and spire of St. George's Parish Church, which they hoped would remain one of the city's treasured monuments. The Cross-Harbour Bridging and Congestion Committee favour the construction of a fixed bridge at Lancefield Quay, with a headway of 75 ft. above high-water level, corresponding to that of the Manchester Ship Canal, and having a practically level roadway of approach from Argyle Street, at the foot of Elderslie Street on the north and from West Scotland Street on the south. They urge upon the Corporation the necessity of putting this bridge in hand at the earliest possible moment. The report and financial statement were adopted. The Council for the ensuing year was thereafter elected, and representatives to the Institute of Scottish Architects were also appointed.

THE JOURNAL "WANTED" ADVERTISEMENT COLUMNS.

Appointments Wanted.

4 lines (about 28 words) 1s. 6d.; 3 insertions 3s.

AEROPLANE or National Work.—Builder's Head Cost Accounts Clerk (45) requires change, permanently, anywhere; thorough worker; £4; 27 years' references.—K., 19, Babington Road, Streatham.

BRICKWORK, Pointing, Sanitary Work wanted, piece or lump; labour only; good references; terms confidential.—R., 58, Ash Street, Walworth, S.E.17.

BRICKWORK and Pointing Wanted; granolithic floors for stables and garages laid by experienced man.—T. A. T., 58, Matlock Road, Leyton, E.

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ENGAGEMENT Wanted for whole time; town or country; efficient in plans, specifications, bills of quantities and estimates in all trades, variations and dilapidations, and management of works; highest credentials; ineligible for war.—Address, Buildings, 3, Cromwell Grove, Hammersmith, W.6.

GENERAL Foreman seeks re-engagement; competent and energetic.—Chas. D. Cronin, 17, Chelsham Road, South Croydon.

GENERAL Foreman seeks re-engagement; good references; first-class ability; used to Government work; age 47; trade, carpenter and joiner.—T. P., 111, Seventh Avenue, Manor Park, E.12.

GENERAL Foreman seeks engagement; carpenter; well up in all trades.—C., 49, Alexandra Road, Gipsy Hill, S.E.19.

HANDRAILS, Staircases, Joinery.—F. W. Boorman, 52, Manor Street, Clapham, S.W.4.

PLUMBER, good (new or jobbing), wants job.—H. C., 143, Harley Road, Willesden Junction, N.W.

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SURVEYOR (F.S.I.), thirty-five years' practical and professional experience, seeks Appointment with large contracting firm of repute where a thorough knowledge of all matters pertaining to extensive building contracts, coupled with energy and ability of the highest class, would be appreciated; no objection to go abroad on reconstruction work; permanency.—R., "Raemor," Hillsborough Terrace, Ilfracombe.

THE Association of Builders' Foremen and Clerks of Works, 56, Old Bailey, E.C.—Experienced Foremen and Clerks of Works can be obtained by applying to the Secretary, Mr. J. W. Sawyer, 214, Clapham Road, S.W. Competent foremen and clerks of works are invited to join this Association.

WANTED.—Painting, decorating; own plant; thirty years' experience; just finished three and a-half years' job; piece or day work; labour, plant, and brushes and supervision from 1s. 1d. hour.—Decorator, 39, Kenninghall Road, Clapton, E.5.

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Miscellaneous.

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BOOKS.—Books on Building Trades, Engineering, Educational, Literary, Technical, and all other subjects; second-hand at half prices; new books at discount prices; catalogues free; state wants; books sent on approval; books bought; best prices given. W. and C. Foyle, 121-123, Charing Cross Road, London, W.C.

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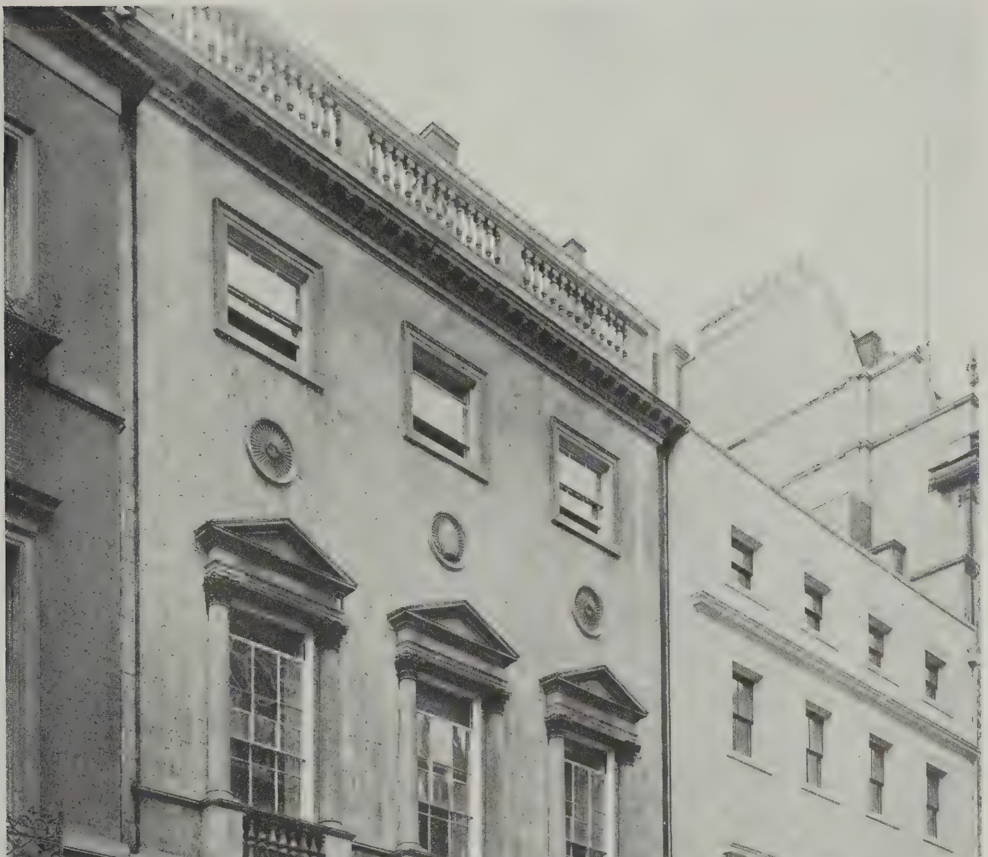
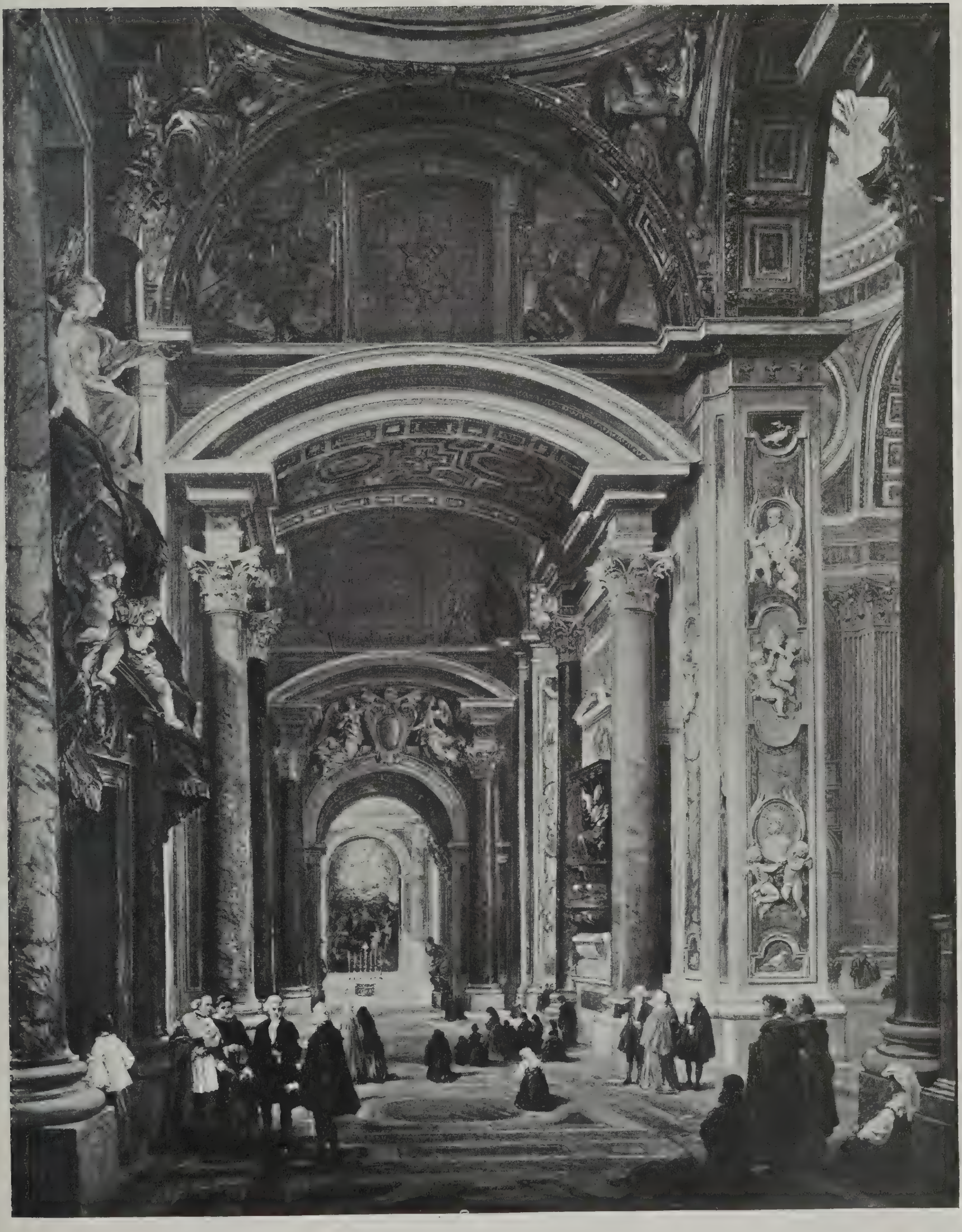


LONDON FAÇADES. XVI.—ELY HOUSE, DOVER STREET, LONDON, W.

SIR ROBERT TAYLOR, ARCHITECT.



ARCHITECTURAL DRAWINGS AND SKETCHES. XIV.—THE TRANSEPT OF ST. PETER'S, ROME.

FROM THE WATER-COLOUR DRAWING BY LOUIS HAGHE.

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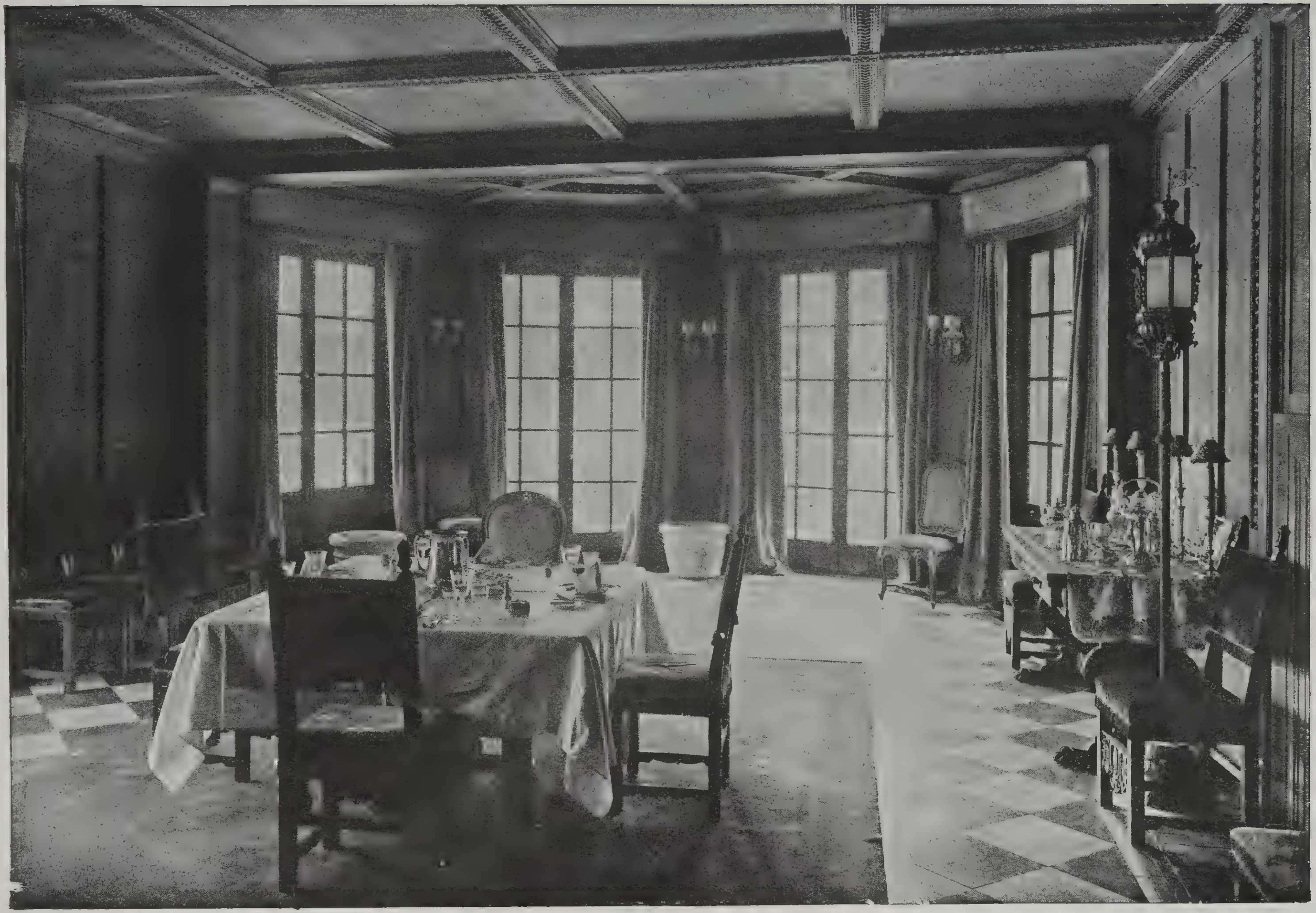
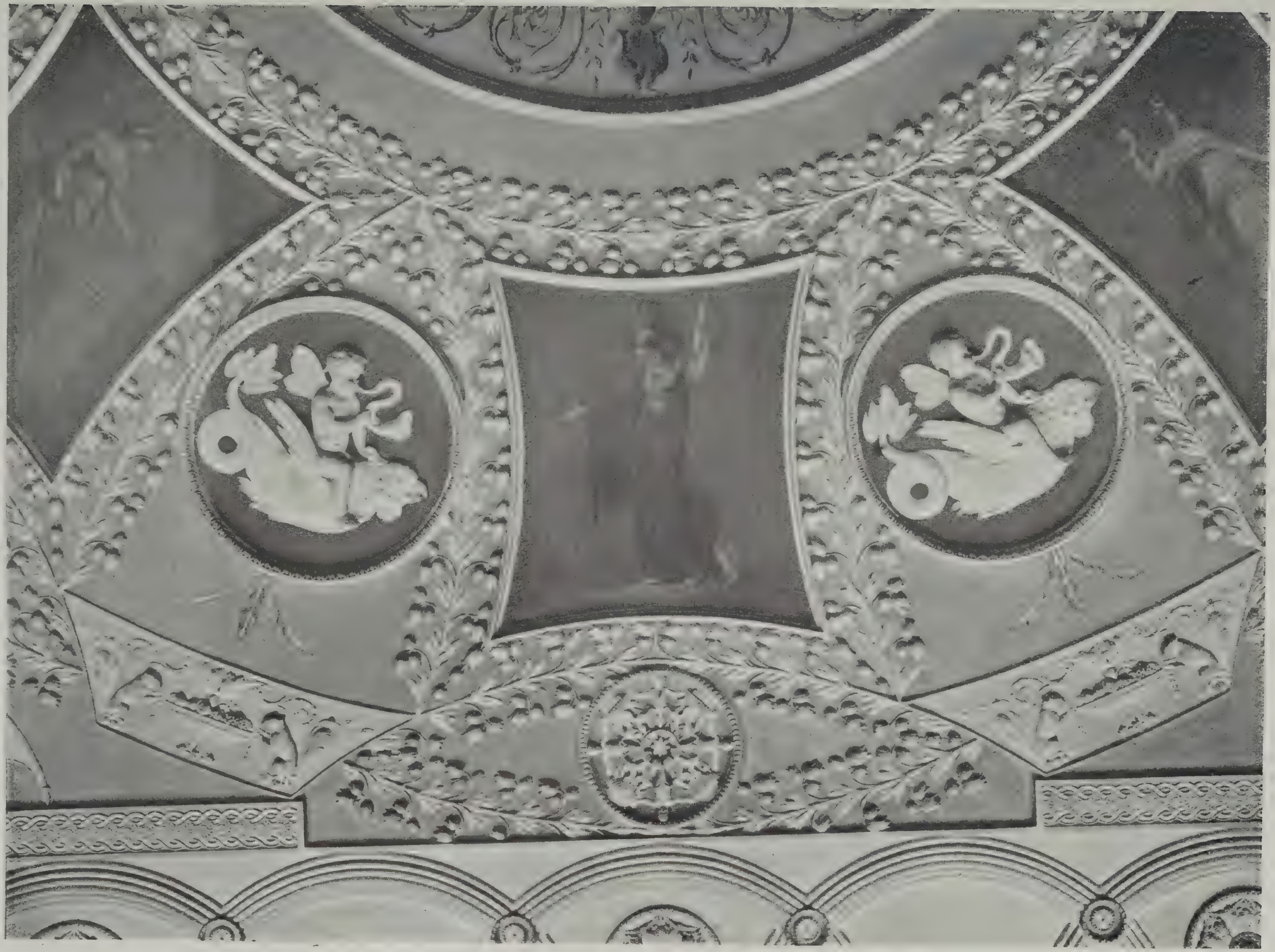


MODERN AMERICAN ARCHITECTURE (SERIES III). VII.—DINING-ROOM IN A HOUSE AT TUXEDO, NEW YORK.

CHARLES A. PLATT, ARCHITECT.



DETAILS OF CRAFTSMANSHIP (SERIES III.). XXIII.—PORTION OF CEILING FROM No. 15, HANOVER SQUARE, FORMERLY THE PREMISES OF THE ROYAL ORTHOPÆDIC HOSPITAL (NOW DEMOLISHED).

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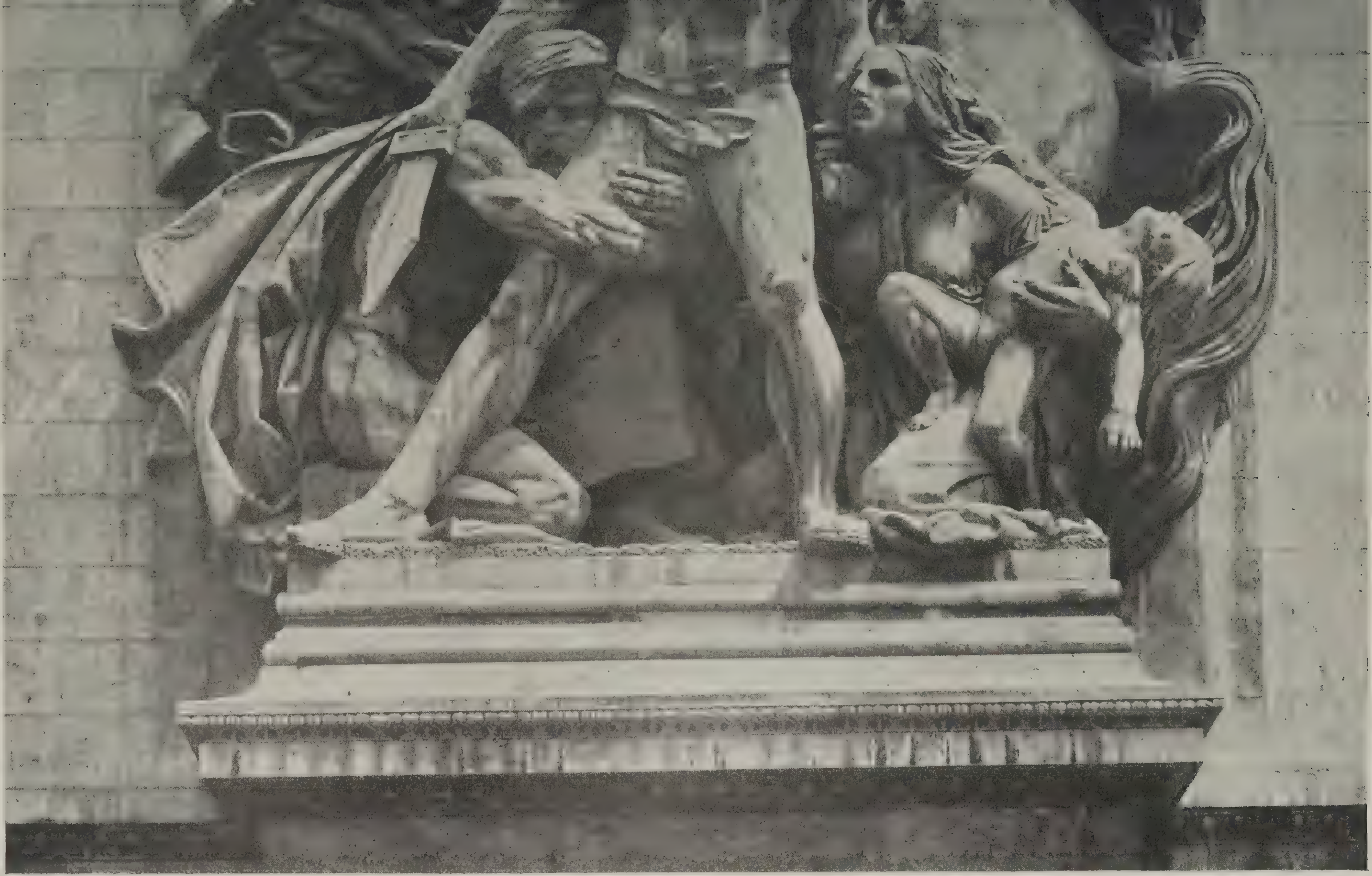


MONUMENTS. XXXV.—SCULPTURE GROUP, "RESISTANCE," ON THE ARC DE TRIOMPHE, PARIS.

ETEX, SCULPTOR.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

APRIL 17, 1918. TOTHILL STREET, WESTMINSTER. VOLUME 47. No. 1215.

NATIONAL PAPER ECONOMY.

wing to the very necessary Government restric-
s on paper supplies, all elements of waste must
igorously excluded. Our readers, we are sure,
gladly assist in promoting this object, which is
tem in national economy. They can co-operate
us effectually in either of two ways—(1) *By*
ing a direct subscription for this Journal, or (2)
lacing with a newsagent an order for its regular
very. Casual purchases—now here, now there—
te a serious discrepancy between supply and
and, and cause wastage of effort and materials.

many directions complaints are taking shape
formally that the Government intentions as to
housing differ materially from what was fore-
lowed by the Local Government Board. At
dford, for instance, the Corporation Public
lth Committee have passed a resolution pro-
ing strongly "against the ambiguous nature of
proposals now submitted by the Government,
ch proposals are that the Government shall for
rtain period—that of not less than seven years
iggested—make a contribution towards the loan
rges representing 75 per cent. of the annual
cit, and that at the end of that period the pro-
y shall be valued, and after such valuation the
ernment shall accept responsibility for 75 per
. of the loan charges in respect of the difference
een the debt then outstanding and the
rtained value of the property, no indica-
being given by the Government as to the
s upon which local authorities are to fix the
al of the properties, and it being impossible to
ne any reliable estimate of the value of the pro-
ies at the valuation period, as this must
itably depend on circumstances which cannot
be foreseen." Further, the resolution urges
, since the Government proposals afford abso-
ly no indication of the financial responsibility
h will have to be borne ultimately by the local
ority undertaking a housing scheme, Govern-
t should be pressed (1) To fix a definite
ortion of the cost of the scheme in respect of
ch they will make contributions either in the way
capital sum, or towards the annual charges;
(2) to confer on local authorities powers
bling them to acquire at reasonable prices any
s which may be needed for the purposes of
sing schemes, and thus to relieve local authori-
of the difficulties and financial burdens which
probably be otherwise encountered. This clear
cation of which way the wind is setting should
aluable to the Government. Their hands being
the moment fully occupied with even more
ghty matters, it is well to postpone further
cism of the scheme until a more propitious time;
it is quite obvious that expectation has been
ed and action thwarted in a manner little short
disastrous. We had expected a substantial
sidy and are offered a shadowy guarantee.

* * * *

ull play of the imagination is necessary, it seems,
the computation of future prices. Mr. Ernest
Selby said as much in the paper he read at the
eyors' Institution last week, and there is no reason to doubt the soundness of the observation. Rather this recognition of a much-neglected faculty should be warmly welcomed; for there is some considerable danger that in the new schemes for educational reform the strange ignorance of the Practical-minded Person will continue to operate in repression of the noblest of human faculties. He—the P.m.-P.—regards it as a vagary of poets, painters, architects, and other feckless folk, and will not believe that it can be harnessed for collar-work—that without it there can be no invention, and that it is indispensable to the higher mathematics and to the highest forms of utility. In this country it is indigenous to the soil, or we should never have produced Shakespeare, Milton, Shelley, Scott—nay, nor Inigo Jones or Wren, nor Newton or Kelvin, Huxley, Tyndall, or Playfair, nor Blake, Turner, Ruskin, or Rossetti, nor Nelson or Lord Roberts, nor any other genius who has given us new visions of beauty or has achieved the conquest of material forces and resources. Let us therefore shape education to ensure cultivation and development of this faculty, rather than its repression. Than architects none know better its value and the means of developing this faculty, and the Institute should urge this point in a strong recommendation of architecture as a valuable instrument of education. Mr. Selby is not to be held responsible for these observations, which perhaps expand his simple remark to a greater length than he would care to go.

* * * *

His main object was to expound "the science of pricing" as he calls it—and we should be the last to quarrel with the phrase—and one is grateful for the admission that imagination is important to that science—is a solvent of hard facts. Imagination also will find full scope in the invention of those labour-saving devices which Mr. Selby foresees must be increasingly introduced as a corrective to the high cost of building operations. In this direction much had been already done even before the war had radically altered the whole situation. The introduction of machinery, as Mr. Selby reminds us, had largely affected the cost of production, not only in the manufacture of certain materials, but also in the execution of the work. "Compare," he says, "the old method of carrying up bricks and mortar in hods with the new hoisting apparatus in use, or the driving of piles by hand-operated monkey with the steam hammer." It would be easy to extend the list. Consider the difference between the carpenter's shop in which Adam Bede worked and talked—mainly talked—and the modern joinery shop, where the machinery makes talking impossible, and where the universal joiner will get through (quite literally, with saw and drill and mortiser) in a day more work than George Eliot's sermonising hero could have accomplished in a twelvemonth. Consider the spraying machines, the concrete mixers, the concrete-block-making machines, the paper-trimmers. Consider—well, consider the manufacturers' catalogues, and the advertisement pages of this Journal and of "Specification." There is, or was, Mr. Selby reminds us, a prejudice against innovation. It must be scrapped without remorse. The pace will be much too hot for those who cling to the old easy-going methods. It is all very wicked, no doubt, this wholesale supersession of hand-labour by machinery, and will not tend to the development of imagination in the craftsman. Will there, in fact, be any craftsmen? All the workers will be machine-tenders, and we shall have to deplore, with Mr. Penty, the exaltation of quantity above quality. On the other hand, it is perhaps more profitable to resolve, with Mr. Ashbee, to see what can be done to accept with a good grace what is inevitable, and get out of machinery the best it can yield in quality as well as in speed. It is of no use to talk and act as if we had not to make up for years of devastation and unproductiveness, and as if we had not to face an appalling burden of debt. As Lord Leverhulme urges so insistently, machinery worked to its utmost capacity is our only means to avert disaster. Other nations will exploit it without compunction, and we cannot afford to be squeamish about it. After all, the applications of machinery are limited, and art will still have its field: if it is merely an allotment, there will be the more reason for cultivating it intensively.

* * * *

Adverting to a subject to which we gave considerable attention last week, it may be added that it should not be difficult to convert town houses, whether in London or in other congested areas, to more efficient fulfilment of the service they are now made to yield. It would be vain, however, to expect the owners to incur the expenses of conversion. It would, we think, be fair and reasonable to apportion to this purpose some of the money which the State intends to grant in aid of housing. This, of course, raises in rather acute form the vexed question of subsidising private owners; which, we have felt all along, will have to be done. Private owners having provided in the past about ninety-five per cent. of the totality of working-class dwellings, it would be unwise as well as unjust to dispense with so much skill and experience. To our mind, the only question that is worth considering is the manner in which the services of these builders shall be secured. To subsidise them directly and individually, under guarantees and safeguards, might not be prudent; but there are other and more scientific methods of financing undertakings, and we have no doubt that some means will be found of obtaining the co-operation of the private builder without enriching him at the public expense, and without any serious breach of economic or other principles.

* * * *

With regard to existing houses that are, as we have shown, " ripe for conversion," we are not confusing the building owner with the landlord or property owner, or with other persons who, so far from being eager to build, are often reluctant to do the most necessary repairs, their object being to get all the money they can out of the house, and to put into it as little as they dare. Slum-landlords, wheresoever they may be found, are not the sort of persons to be trusted with subsidies. A much higher standard of decency should be exacted from them, and, on their failure to conform to it, the work should be done at their expense through the local authority, which should be invested with the further power to take over the rents until the cost was liquidated. This need not be done with cruelty. Slum landlords are not all millionaires. Some of them live from hand to mouth, and should not be deprived of their means of livelihood by the entire temporary diversion of their rents. A reasonable sum could be allotted them on satisfactory proof of their dependence on this source of income; but what must not be allowed them is liberty to disfigure the streets with grimy and battered house-fronts, or to perpetuate the "warehousing" of human beings to the detriment of the public health and the national stamina.

* * * *

It would be amusing, and perhaps useful psychologically, to collect the humours of the housing movement. No history of the movement would be complete without them. They would light it up—sc
times rather luridly, but more often lambently.
public meetings they abound; but the richest veins
those that are exposed at meetings of local author
For sheer impudence, the proposal that the S
should grant a loan for two hundred years, at
interest of nought per cent., still holds pride of pl
and seems invincible. After this manifestation of
sanguine temperament, all other outbursts of optin
must fall flat. But the pessimists are by no m
dumb, although their utterances are naturally as n
less dazzling and less daring as defence is than ass
A very mild example, in which the pessimism is in
tone rather than in the substance, comes from
north. An alderman said that "in the end they w
find that the Government would give them noth
Up to date one political party had thought it w
crime to own houses. If that political section or
other section thought they were going to get ho
for nothing, they were sadly mistaken." This sh
chasten the expectation of a two-hundred years'
without interest; but it shows no excess of gratit
for what the State is doing for the benefit of the nat
Yet it expresses—somewhat cynically, perhaps
wholesome truth. That the State is going to pam
and coddle the working-classes is an idea that car
be too widely discredited among the bourgeoisie,
too emphatically discouraged among the workers:
bulk of whom, we are confident, have too much
respect to want "something for nothing," and too m
intelligence to expect that they can get three shill
for three-halfpence.

HERE AND THERE.

ALTHOUGH Mr. Frederic Harrison has lost n
jot of his old force and fire, the fact that he
instructed and scolded and delighted
generations is rather heavily emphasised by a grow
tendency towards pessimism in his brilliant "Ob
Scripta," which nevertheless provide always the n
philosophical as well as the most pungent pages in
"Fortnightly." Perhaps, like that other g
publicist, the late Mr. W. R. Greg, he rather revel
the rôle of Cassandra. "For fifty years," writes
Harrison, "I have criticised the assumption by
House of Commons of direct executive authority
contrary to the proper duties and to the essential li
of a representative Parliament. The evils, the futilit
of this assumption have been manifested in this n
awful war, and were never more pernicious than in
present crisis." Alas for Cassandra! Parliame
and municipalities are at the present moment push
this assumption to the utmost limits.

* * * *

Nobody but a case-hardened Collectivist wo
have the hardihood to contend that they are
taking too much on themselves in thus mixing th
functions. Apart from all considerations of
nepotism to which an over-departmentalised St
almost inevitably gives hostages, and setting as
war-time experiences as abnormal, the evidence
favour of extending the executive authority
Parliament is not convincing; and the compara
attitude of municipalities is equally unfortuna
the London County Council once ran a works
partment; and the best that can be said of its ess
in educational administration, and in sch
building, is that they might be worse, and th
considering the heterogeneous constitution of
Council, it is marvellous that its multifarious du
are discharged with tolerable efficiency.

* * * *

Presently, however, there is to be a violent revulsi
for Mr. Harrison declares that Imperial Parliamen

hambers, and Dumas, are being superseded by
ıdustrial Conferences, Democratic Unions, Soviets,
fact. In the same way the trade unions are being
ıdermined by local groups. "Parliamentary Govern-
ent and trade-unionism alike are dissolving away in
sort of democratic anarchy. We are in the mid-
ream of Democracy as a kind of national creed." In
king this tone, Mr. Harrison is perhaps too strongly
fluenced by the disintegration of Russia; but he is
ıreful to comfort us with the assurance that British
olshevism would be a comparatively bland type of
e disease—revolution without tears. Does not
ıarchy always presage reconstruction? Demolition
dusty and dangerous work; but ultimately the site
cleared, and the spick-and-span new building rises
ajestically (or otherwise) out of the chaos—and may
no better, but infinitely worse, than the one it
persedes, yet will be almost certainly more in accord
ith the taste and requirements of its day.

* * *

Syndicalism—Mr. Harrison probably hates the word,
r he has a paragraph in which he pillories new (and,
ıe would have thought, innocent) expressions like
olidarity"—is no doubt a rather puzzling pheno-
enon. No one can tell, as yet, exactly what it
ırtends. You call it "labour unrest," shrug your
oulders, turn to Quennell for quintessential wisdom,
Penty for a panacea, and come from Q. with an
ldition or two to your qualms and your vocabulary,
om P. with increased perplexity, observing that it is
ıpossible to mind your P.'s and Q.'s when they seem
incompatible. Labour unrest you then set down as
heer cussedness," and let it go at that. Mr.
arrison's is the more satisfactory way—to himself.
must be very consoling to him to be able to say, like
e old lady when informed that the cow had swallowed
e grindstone, "There! I told you so!" Critics are
ldom or but little constructive, and Mr. Harrison has
is defect of his fine critical faculty. That he is
tirely right in deprecating the assumption of
ecutive powers by the Government I, for one, am
nvinced. A heterogeneous mixture of legislative
d administrative functions cannot conduce to
iciency in either direction, whether in a municipality
a State, or even in a professional organisation or a
ıde union. It is as if a man should try to keep wicket
his own bowling. Yet, just as there is—there must
—reasons for labour unrest, so there must be reasons
r over-centralisation, or what is more popularly
lled grandmotherly Government. If only we could
ot the causes with certainty, the diseases could be
mediately stamped out—or, rather, the cure would
spontaneous.

* * * *

Our publicists, however, would seem to have but a
oderate skill in diagnosis, and, until yesterday, very
v of them seemed to realise that these diseases were
ore than skin-deep. What, however, are the reasons
over-centralisation? I cannot pretend to have
scovered any or all, but it may be permissible to
zard a guess or two. In the first place, local self-
vernment has not worked out very well from its
rliest stages. Buckle, in his now much-neglected
istory of Civilisation in England," holds, if I remem-
r aright, "that those who have power will abuse
and to transfer it is merely to change one form of
anny for another. Certainly the feudal barons
used their power grossly, and their ideas of local
f-government had to be corrected by central control,
ich in turn became unendurably tyrannical. Taking
immense leap forward, we find that Government
d to step in because local government was lax or too
ingent, and that the tyranny of capitalism has pro-
ced an arbitrary peevishness of trade-unionism. To
oid chronic deadlock, the opposing forces of capital
and labour came to a parley. Conciliation Boards were established for the settlement of disputes in the building trades, and for a long time worked so well as to suggest that the labour problem had been solved, and strikes and lockouts abolished.

* * * *

Disillusion came when it was realised that the London strike could not be handled pacifically. Agreements reached after months of patient negotiation were repudiated at the first opportunity, and on the shallowest pretexts, or even without the slightest attempt at justification; and when the war broke out we were on the eve of what would probably have developed into the most colossal labour dispute in history; for it is quite certain that the threatened general lockout in the building industry would have been followed by a strike of all organised workers, and a complete paralysis of the nation's energies, with civil war as the possible, even probable, outcome of it all. That menace, let me whisper, is not lessened visibly by the fact that all the workers are now trained soldiers. That is a delicate matter upon which I do not care to dwell; but I think that it should be taken into account by those few old-fashioned employers who seem disposed to regard with indignant scorn all attempts to reform an industrial system that, after all, is merely an ephemeral phenomenon—some would say a temporary aberration—in the process of social evolution. This hint to the obdurate is not needed by the more enlightened employer, who is impelled by his sense of fairness to do all that is possible to remove any legitimate cause of discontent, any condition provocative of a rebellious spirit among the workers.

* * * *

It seems to me that the fine phrase resuscitated in this Journal a few weeks ago, "Equality of Consideration," should be kept well in view. Mr. Harrison would probably condemn it as a mere catch-phrase. I venture to think that nevertheless it touches the spot. Our workers are proud as well as pugnacious, and they demand to be treated not merely as human beings, but as Britons, having the same racial characteristics as their employers, especially the same stiff-necked obstinacy. They think that this claim has not been sufficiently admitted, and they resent more bitterly the implied assumption that they are inferior beings, incapable of intellectual and creative effort and devoid of capacity or desire for rational enjoyment and decent living, than they resent the hard material conditions which industrialism has imposed upon them. They are tired of being herded and branded in droves. They are continually demanding "recognition"—a favourite word of theirs: and is it not akin to "equality of consideration"?—of their manhood and dignity; and they have little or no belief in the "super-man." "What does he know about it?" is an expression often heard at the bench, or up aloft on the scaffolding. They think that the fine gentleman who has come to them with criticism or advice lacks the peculiar qualification that only practical experience could give him. "Thinks he knows all about brickwork," I heard a man comment on an architect, "but I'll bet he never laid a brick in his life—afraid of making his hands rough or of getting a spot of mortar on his spats." This you may call class-jealousy, envy, anything you like, but, no matter for the label, it is a powerful element in labour unrest. And what creates class-jealousy? "Inequality of Consideration." There is a whole system of moral philosophy condensed in that fruity little phrase. That we are approaching equality of consideration there are very many hopeful signs. Here is one of them. It is a passage from a speech by the Earl of Durham at the unveiling at Swalwell of a monument to fallen soldiers: "He hoped that as they had all been united in one desire and one effort to fight for the country, so, when the victory had been won, they would go together hand in hand and heart to heart to ameliorate the conditions of this country, and make it happier and more contented than it had ever been before." Amen say I to that! We have achieved unity. Let us stick to it, and continue to pull together. At the moment when I am passing this proof, the news from the front is by no means reassuring; and the gravity of the situation half-disposes me to apologise for any appearance of flippancy that may seem to jar with it. But *sursum corda!*

DIOGENES.

CORRESPONDENCE.

Preparing for Peace.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I see by Mr. Quennell's latest article on "Preparing for Peace," that he has done me the honour of reading my two books, "The Restoration of the Guild System" and "Old Worlds for New." But I wish he had read them more carefully, for he has both misquoted and misinterpreted me. May I, therefore, in the interests of the discussion, be allowed to correct the wrong impression which he gives?

1. Mr. Quennell says, "Mr. Penty rails at the merchant class, but it is difficult to see how they can be dispensed with, etc." Exactly what Mr. Quennell refers to here I do not know, but whatever it may be I never said that the services of the merchant could be dispensed with, though I think it is not improbable that in the future they may be subject to the control of some corporate body—whether it be a guild or a co-operative society. Anyway, whatever be the solution of the problem which the merchant presents (and I have never dogmatised upon this issue), there is nothing in it incompatible with guild organisation. The Middle Ages had its Merchant Guilds, while I read in the "Indian Trade Journal" (February 19, 1907) that "the Japanese, in preparing to compete with European nations for commercial prosperity, are showing a distinct reversion to former ways and methods. Amongst other things, steps were being taken to reorganise the old Trade Guilds." From which it would appear that there is nothing incompatible between guild organisation and an extensive foreign trade. I think an extensive foreign trade is to be deplored, because it leads to political instability, but that is another question, and I do not press it here.

2. Then Mr. Quennell says, "Mr. Penty will not agree that there is any hope in the Whitley Councils, and his reason for this is found in the last chapter of his book, 'Old Worlds for New.' Here he states his opinion that the disease of our society has proceeded so far that the only thing to do is to destroy it, etc." Here, again, I must take exception to Mr. Quennell's words. I never said that we should seek to destroy modern society. On the contrary, I have always maintained that modern society would destroy itself and go to pieces, for the modern tendency is, I am assured, towards social suicide, and that in these circumstances it was a waste of time to attempt to patch it up. The only thing to do is to seek to replace it by a society based upon the civilisation of the past. By this I mean that we ought to pay attention to things fundamental. If architects had been guided by this principle they would not have turned away from the revival of craftsmanship because they found it opposed to modernism, but would have supported it as the germ of future, with the full knowledge that modernism had no elements of permanence in it. What Mr. Quennell means by saying that I will not agree that there is any hope of the Whitley Councils I do not know. Considering that in both of my letters I said emphatica
that I regarded them as the first step towards restori
the guilds, my criticism of them tended to bring
the fact that this must be the case, as they could
harden into a permanent arrangement. It may
true, as Mr. Quennell said in a former article, that th
may become merely a talking shop. But even if t
prove to be the case, it would be all to the good;
talk in a democratic society must precede action.
a word, I do not regard Whitley Councils as ends
themselves, but it is possible they may become mea
to an end.

3. Mr. Quennell says that I do not want to recrea
the Mediæval Guild. Again, I must say I do not kn
where he gets this idea, for I most certainly do. F
me it is the goal to which I believe some day we sh
return, but I do not at the moment propose such
revival, deeming it for the present impractica
What I do propose is Building Trade Guilds, wh
would differ from the Mediæval Guilds to the ext
that instead of all the different building trades bei
organised into separate guilds as in the Middle A
they would all be in one guild together with the arc
tects. This difference corresponds to the difference
the trade union world between the old craft uni
and the new industrial unions, which seek to organ
the workers not on a basis of craft, but around the j
Thus all trades required in shipbuilding are in
union, all required for railways in another, all requi
for building in another.

Mr. Quennell refers to the Lambeth Guild of Han
craft which he started and which failed. This I wo
observe is no argument against guilds, for the use of
word guild in such a connection is a misnomer. S
organisations are not guilds, but self-governing wo
shops, and they have only been successful when th
had tied markets. I am not advocating them. T
essence of a guild is that it shall control an entire tra

When discussing the practicability of revivi
Guilds, Mr. Quennell says, "How far this is p
sible is a question for the economists. T
Mediæval Guild fulfilled its function admirably
long as business was local, but lost its utility dur
the expansion and beginnings of foreign trade
the end of the fifteenth century." To the first
these assertions I answer that this question
restoring Guilds is one for us and others interes
in production to decide. The idea architects m
get hold of is that their fate depends finally u
themselves, upon their own attitude towa
things. They must learn to trust their own ju
ment. It is no use trying to shuffle off responsibil
on to the shoulders of economists. If we are
qualified to judge, certainly they are not. Eco
mists as such do not profess to know the way
of the existing tangle. Their business, they tell
is not to find a solution to our problems, but to
us what exists, but they have not a word to
about the problems with which we are concern
Economists are children of the established fa
They always seek to justify what is success
Let us seek to restore the Guilds and the economi
will find reasons for supporting us. They will
construct their history for the purpose. We sh
then hear no more about the Mediæval Guild
filling its function admirably so long as busin
was local and losing its utility during the expans
of foreign trade at the end of the fifteenth centu
We shall then be told that the guilds came to
end for the same reason that the monasteries ca
to an end—because their suppression offered
opportunity for plunder. The issues discussed
this letter I feel are side issues, but as Mr. Quen
has chosen to discuss them rather than the cent
issue I raised, I feel I have no option but to re
to them.

ARTHUR J. PENTY.

ST. PAUL'S, COVENT GARDEN.

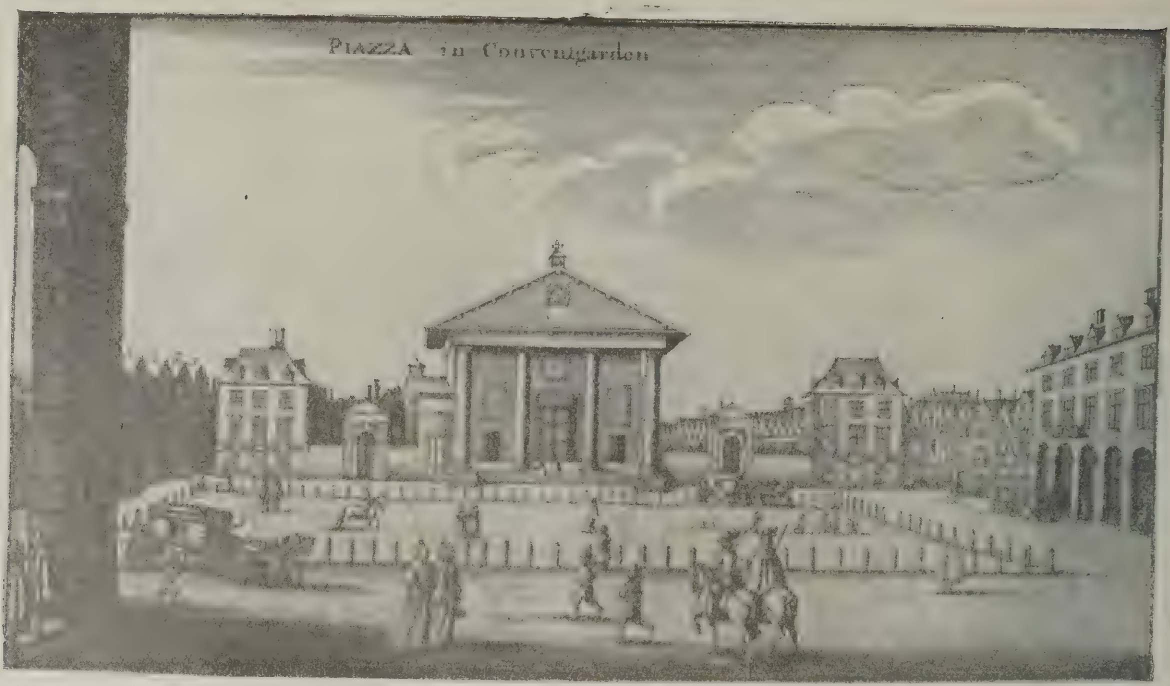
WITHIN the past few weeks, the parish church of St. Paul, Covent Garden, has been much discussed in the Press, the occasion being the agic and heroic death of its grand old rector, and the ppointment of a successor to him. As the subject is opical, we show here some interesting illustrations of e church. Several newspaper writers have ascribed e building to Inigo Jones. This is a very natural istake. Jones, indeed, designed, in 1633, for rancis, Earl of Bedford, the church on whose site the resent building stands, but his work was totally estroyed by fire on September 17, 1795. Hardwick ebuilt it with great fidelity to the original designs. orace Walpole, whose taste in such matters was little hort of vicious, professed his dislike of it: "The barn oof over the portico of the church," he writes, "strikes y eyes with as little idea of dignity or beauty as it ould do if it covered nothing but a barn. In justice Inigo," he continues, in his fatuously airy manner, one must own that the defect is not in the architect ut in the order: who ever saw a beautiful Tuscan uilding? Would the Romans have chosen that order or a temple?" Then follows the inevitable anecdote, hich has been so frequently quoted in the daily Press uring the past few days that we hesitate to repeat it; ut no account of the church is complete without it. Mr. Onslow, the late Speaker, told me an anecdote at corroborates my opinion of this building. When e Earl of Bedford sent for Inigo, he told him he anted a chapel for the parishioners of Covent arden, but added he would not go to any considerable xpense. 'In short,' said he, 'I would have it not much better than a barn.' 'Well, then,' replied Jones, "you shall have the handsomest barn in England.' The expense of the building was £4,500." One has no hesitation in classing this with the multitudinous *post hoc* anecdotes of which the Queen Anne's footstool story about St. John the Divine, Westminster, is an equally notorious and even less credible example.

Mr. Arthur Stratton shows, in an article on Covent Garden published in the "Architectural Review" for April, 1917, that in placing the church where it is Inigo Jones deftly solved a rather difficult laying-out problem. "The key to the successful solution of the problem," Mr. Stratton writes, "lay in placing the church on the western side of a piazza presented a into the opposite side of the piazza, but the design of a church on the western tide of a piazza presented a difficulty if the accepted orientation was to be followed. Inigo Jones solved this by providing a portico at the east end so disposed that it belongs to the piazza as a whole rather than to the church in particular. It was a bold move, and anticipated the series of great porticoes which ennoble the approaches to many eighteenth-century churches in this country. Subordinate entrances to the church occur under the portico, but the principal entrance was still kept at the west end, and reached through the churchyard, an arrangement that suited the convenience of those living round the piazza as well as of those dwelling in the western purlieus of the parish."

James Ralph, who published in 1734 "A Critical Review of the Public Buildings, Statues, and Orna-

ST. PAUL'S CHURCH, COVENT GARDEN, LONDON: THE WEST FRONT.

(From an E graving after P. Sandby, published in 1766.)



VIEW OF EAST FRONT OF ST. PAUL'S CHURCH, COVENT GARDEN, FROM THE PIAZZA.

(*From an Engraving by W. Hollar, circa 1650*)

ments in and about London and Westminster," and whose criticisms are generally sound, is cited by Mr. Stratton as saying: "The church here is without a rival, one of the most perfect pieces of architecture that the art of man can produce: nothing can possibly be imagin'd more simple, and yet magnificence itself can hardly give greater pleasure: this is a strong proof of the force of harmony and proportion: and at the same time a demonstration that 'tis taste and not expence which is the parent of beauty." John Ralph's whole-hearted admiration for the church's exemplification of the true principles he enunciates so clearly may show some little exaggeration; but it is sheer joy to set his well-grounded opinion in opposition to the irresponsible smartness of such a fribble as Horace Walpole, who was indeed a "man of taste"—mostly false. Mr. Stratton's own opinion of the church is that "in spite of the misfortunes that have befallen it—sufficient to rob any less forcible design of its character—it still retains an air of distinction, and is an object-lesson on the possibilities of pure architectural form, owing nothing to adventitious ornament, but much to the effective play of light and shade"—an effect that, it will be seen, is well brought out in the accompanying illustrations.

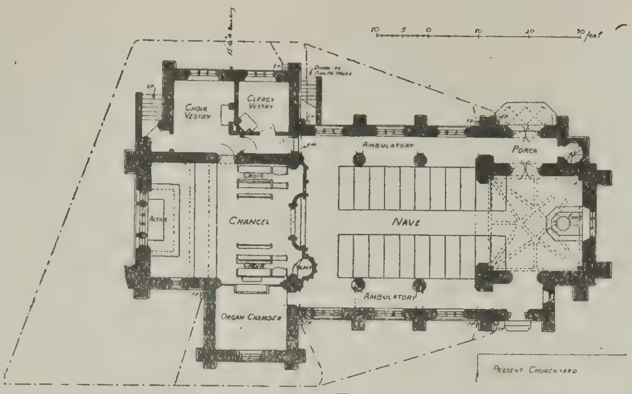
The grant of the king's letters patent for the church was made in June, 1635, but it was not consecrated until September 27, 1638, when the ceremony was performed by Juxon, Bishop of London. At that time it was a chapel-of-ease to St. Martin's, but in 1645 it was made parochial. It was built originally of brick and stone, but in 1788, when it was thoroughly repaired by Hardwick, he found it faced with stone. Its frequent need of repairs would seem to show that the original construction was weak, and it is said that the foundations were unsound. When Hardwick rebuilt the church, he had to design a new roof-truss for a span of nearly 50 ft., to carry an outer covering extending several feet beyond the face of the external walls.

With Mr. Stratton everybody will now agree that the boldness of the projecting roof at the eaves, with its continuation over both fronts, is "extremely telling," and that the effect at the west end is especially happy, whether or not its impression on a frivolous mind is that of a glorified barn. Buildings more than anything
else have been slandered by silly and degrading co
parisons, which include the likening of the magnifice
campanile of Westminster Cathedral to a facto
chimney! The exterior is now faced with bric
and the roof, once tiled, is now slated, b
in 1888 the reinstated turret at the west e
was taken down, and nothing now rises abo
the ridge level. The screen walls and flan
ing gateways to the churchyard, so valuable
sub-motifs, have gone; and another alteration has be
the widening of the narrow archways to the side wa
of the portico. Much, then, Mr. Stratton conclude
has tended to detract from the beauty of a church
which its designer thought so highly that he wishe
that a bas-relief of the portico might be introduc
into the design of any monument to be set up to h
memory. As with Wren and the other St. Paul's, t
architect could have no better monument than t
church itself: for, as we have seen, Hardwick worke
reverently to Inigo's designs, thus investing the chur
with an interest and a vitality that it could hardly ha
possessed if the later architect had been ambitious
originality. In a sense, therefore, it is also a mon
ment to Hardwick's self-effacement if not to his sk
in design. His was at once an act of piety and (to u
a word common in his day) of perspicaciousness, f
he knew that he could do no better than follow t
master. To a greater extent than perhaps any oth
London church, save, of course, the abbey and t
cathedral, St. Paul's, Covent Garden, is the buryin
place of men eminent in literature and the arts—
Samuel Butler the author of "Hudibras"; of Wolc
("Peter Pindar") the satirist; of Wycherle
Southerne, and Mrs. Centlivre the playwrights; of S
Peter Lely and Sir Robert Strange the artists; and
many men and women of lesser note, includin
naturally, a large number of actors and actresse
among them Edward Kynaston the actor of fema
parts when it was considered improper for women
act. Grinling Gibbons also was buried there, and
was there that Lady Mary Wortley Montagu receive
infant baptism. Dr. Wolcot, who committed almo
all the sins he satirised, had, like James Thomson, th
engaging habit of lying in bed all day; for, sa
Wolcot, who weighed fifteen stone, it was easier t
rest this burden than to carry it about.

THE PLATES.

Winksley Church, Ripon, Yorks.

HIS church, designed by Messrs. Connon and Chorley, FF.R.I.B.A., of Leeds, has been erected in memory of the first Baron Furness his son (the second baron, and now Viscount rness) and family. The endeavour of the archi-ts was to produce a simple village church of the ditional English type; and in this aim, it will be reed, they have been completely successful. e church, which provides accommodation for 100 rshippers, is complete in all respects. The ne of which it is built is millstone grit, obtained m neighbouring quarries. The roof, and all ner woodwork, is of English oak. The contrac-s were Messrs. Armitage and Hodgson, of Leeds, e oak fittings having been executed by Messrs. bert Bridgman and Sons, of Lichfield.



PLAN OF WINKSLEY CHURCH, RIPON, YORKS.

CONNON AND CHORLEY, FF.R.I.B.A., ARCHITECTS.

The Junior United Service Club, London.

The Junior United Service Club, which occupies e fine corner site formed by Charles Street with wer Regent Street, is a notable building in an ea where fine façades are the general rule. It s founded in 1827, but was rebuilt and enlarged 1857 from the designs of Messrs. Nelson and nes. Our illustration shows the building as it peared before the addition of an admirable top orey by Sir Aston Webb.

St. Paul's Church, Covent Garden.

The history of this very interesting church is ated in the article beginning on page 177.

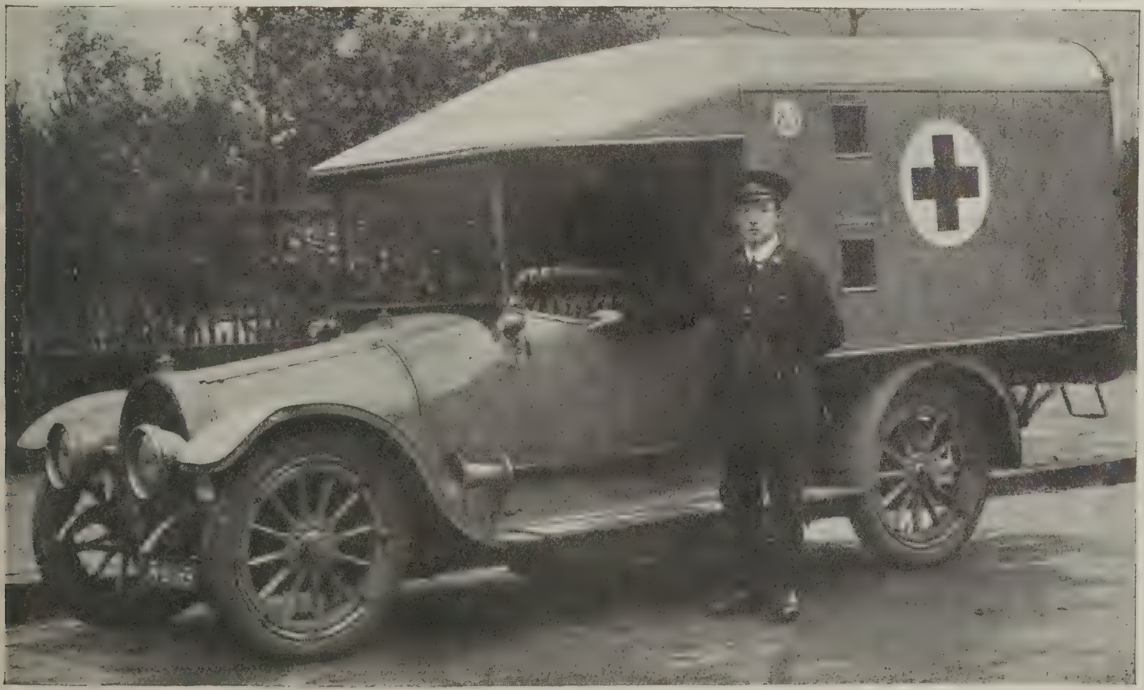
THE A.A. MOTOR AMBULANCE.

VE give below, by courtesy of the "Architectural Association Journal," an illustration of the motor ambulance belonging to the chitectural Association Voluntary Aid Detach-nt, whose workers are doing such splendid vice on the London Ambulance Column in con-ction with the transport of wounded men arriving London. We learn that the ambulance has been n the road" since last July, and has already a very creditable record of work accomplished. It is certainly one of the most up-to-date ambulances in the column, and has many improvements on those of an older type. The chassis is a De Launay-Belville, and the body was built by the Grosvenor Carriage Company. It is enamelled grey outside and white inside, and has accommodation for four cot cases in addition to a nursing orderly who is provided with a seat. The lettering on the outside, "London 43rd V.A.D. Westminster Division, attached to Ambulance Column, London District," which is in red, was specially designed.

The ambulance complete cost approximately £440, and the whole of this sum, apart from a grant of £50 which was made by the Westminster Division of the Red Cross Society, was subscribed by members of the detachment and their friends.

The general upkeep and running expenses are met from a fund which is maintained by a regular subscription from members and others who are good enough to contribute. The car has been on the road an average of five hours per day (including Sundays), and driven by Mr. H. Rehm.

The detachment is in urgent need of more members, and volunteers are earnestly asked to communicate with Mr. F. R. Yerbury at the A.A. offices, 34 and 35, Bedford Square, W.C.1.



THE ARCHITECTURAL ASSOCIATION V.A.D.'s MOTOR AMBULANCE

NEWS ITEMS.

A Builder's Estate.

Mr. Tom Horsfall, of Ings House, Liversedge, Yorks, builder and contractor, left estate to the value of £48,435.

Architect's Estate.

Mr. Frederic Chancellor, J.P., F.R.I.B.A., architect and surveyor, of Chelmsford, who, as we recorded a few weeks ago, died at the age of ninety-two, left £38,732.

Dudley Wages Increase.

The Dudley carpenters, joiners, and bricklayers are to receive an additional 2d. an hour, making 1s. 2d. to date from April 1. Labourers also receive the same advance, which increases their wages to 11d. an hour.

Concrete Shipbuilding in America.

The United States Congress is to be asked for $50,000,000 (£10,000,000) for the development of concrete shipbuilding. The intention is to establish immediately five Government yards, two on the Pacific coast and three in the south.

Haileybury Memorial.

At a meeting of Old Haileyburians held at the Goldsmiths' Hall, it was resolved to raise a sum of £50,000 for the two purposes of educating at Haileybury the sons of Old Haileyburians who have fallen in the war and of building a memorial hall to take the place of the existing dining-hall.

£10,000 *Memorial to Captain Ball, V.C.*

In memory of his son Captain Albert Ball, V.C., the famous aviator, Alderman A. Ball, of Nottingham, has bought land on which he intends to erect memorial homes for mothers and widows of fallen soldiers. He is spending £10,000 on the scheme, and part of the land will be used as a site for a monument to the fallen local heroes.

Ashton Housing Scheme.

The Ashton Corporation Housing Committee have adopted a scheme for the erection of 1,000 new houses on eighty acres of land bounded by Mossley Road, Darnton Road, and Mellor Road. The scheme provides for fifteen houses per acre, and each house is to have a garden at the back and front. Thirty acres of glebe land on the Heys estate have been offered to the Committee at an annual rental of £625, whilst the trustees of the Stamford estate have offered fifty acres for £20,000, or £400 per acre. Building will be commenced immediately the war is over.

Sir J. Wolfe-Barry's Estate and Bequests.

Sir John Wolfe-Barry, K.C.B., of Delahay House, 15, Chelsea Embankment, S.W., and Dartmouth House, 2, Queen Anne's Gate, Westminster, chairman of the Eastern Extension Australasian and China Telegraph Company and other companies, engineer of the Tower Bridge, of Kew Bridge, the Barry, Immingham, and other docks, left £278,362. The testator gives £1,000 to the Westminster Hospital, £250 to the Benevolent Fund of the Institute of Civil Engineers, and £200 to the Benevolent Fund of the Institute of Mechanical Engineers. On the death of his wife he further gives £1,000 to the Westminster Hospital, £1,000 to the Benevolent Fund of the Institute of Civil Engineers, the marble bust of his father, Sir Charles Barry, to the Reform Club, the portrait of his father by Pickersgill, R.A., to His Majesty's Government, to be hung in the Houses of Parliament, or, should this condition be refused, then to the National Portrait Gallery or the Royal Institute of British Architects, and presentation articles from Royalty, the Government, and corporations and companies to his children.

Overseas War Memorial.

The March issue of "Overseas" gives special prominence to an appeal for the Overseas War Memorial Fund. The memorial is to take the form of a building in the heart of London—to be erected after the war—which will be the rallying point in London for every British subject from overseas. In addition to the accommodation of a first-class club, including bedrooms and restaurant, it is hoped to provide "the best information bureau in London." On Empire day (May 24) a big effort is to be made by the promoters in aid of the fund.

Building Trade Wages in Birmingham.

Questions of wages of men engaged in building trades in Birmingham and Sutton Coldfield and of rules affecting hours and overtime are to be considered by a special tribunal to be appointed by the Minister of Labour or the Committee on Production. The tribunal will be asked to advance the wages of skilled men from 1s. 2¾d. to 1s. 6d. per hour, and of unskilled men from 11½d. to 1s. 4d. per hour. The suggested alteration of rules includes: Working hours to be from seven a.m. to five p.m.; double time to be paid on bank holidays and after four p.m. on Saturdays; and provision to ensure insurance cards being given up to employees upon termination of employment.

Overcrowding in the West Riding.

A serious report on the housing conditions of the West Riding has been prepared by the County Medical Officer. House-building has, he says, almost ceased, except in war activity areas. During the past three years there has been a drop of 11,000 in the number of houses normally built, and there is great overcrowding, for instance, in the South Yorkshire coalfield. The 1911 census returns showed more than 20,000 overcrowded houses; and the Medical Officer considers there is now need for 38,000 more houses in the Riding, including 7,000 to replace unfit ones that ought to come down. More than 14,000 of the new houses are required for colliery districts.

Wakefield and District Master Builders' Association.

At the monthly meeting of this Association Mr. Samuel Hall (President) in the chair, the President and Mr. Turner reported on the business dealt with at the March meeting of the Yorkshire Federation Council, which they had attended at Pudsey, and several questions arising out of the report were discussed. Correspondence relating to applications received from the Operative Bricklayers' and Labourers' Societies for increases in wages was read, and it was reported that the Bricklayers' Society had given notice of appeal to the local Conciliation Board in respect of their application. The application from the Labourers' Society was considered and dealt with.

State Housing Programme.

Mr. Hayes Fisher, replying to a deputation from the London Labour Party on March 22, said that to build good houses after the war at anything like a rent which the working classes could afford must largely depend on the pric money, and therefore it would be us for the Government to prepare plan too large a scale. The figure that he Dr. Addison had in mind was that it m be possible to build 300,000 houses w twelve months of the end of the war. had seen it stated that there was a p bility of building a million houses. really was not possible. With refer to a suggested conference of all authorities, Mr. Hayes Fisher said he was waiting a report on a compre sive survey which the London Co Council told him they were going to m and in due course he would take care the suggestion should be brought be the Council.

Dolomite Bricks.

In a Patent Office specification issued, Mr. A. Rollason, 13, Lime G Long Eaton, Derbyshire, describes process of making bricks, blocks, etc. roasting dolomite at 1050-1350 deg. until it becomes semi-fused, granular, and non-absorbent, crus and mixing with about 1-5 per cen finely crushed dry silica or siliceous The thoroughly mixed mass is dan with water or other liquid, or is mixed hot dehydrated tar, moulded, and he in a kiln to the temperature of fusio the silica or siliceous clay. The tem ture is then raised and maintained sli above that of fusion, then lowered b the fusion point, and finally slowly r and maintained at the highest temper attainable in the kiln.

Housing for the Workers.

With reference to the Govern Memorandum on the erection of wor class houses, a correspondent writes: " provision of such houses may rest la with the local authorities, and it is hoped that they will take into full sideration two essentials: (1) econom construction and (2) the attainment o best results for the expenditure incu Generally, work on the lines recomme in the Memorandum would be emin satisfactory, but there are one or details that could be improved upon. instance, in regard to floors, it is s that 'a layer of bituminous compos beneath the boards is desirable,' but correspondent reminds us) there are means of securing the desired results cement waterproofing powder will eff ally answer the same purpose. A rendering in one coat of Pudloed ceme a sure preventive against rising dam and is relatively inexpensive."

COMING EVENTS.

WEDNESDAY, APRIL 24.

Royal Sanitary Institute.—Mr. F Baines, M.V.O., F.R.I.B.A. (Prin Architect, H.M. Office of Works), "Housing: Planning and Materials, manent and Semi-Permanent," also Sanderson Furness (Hon. Sec. Hou Sub-Committee, Women's Labour Lea on "Housing: Fitments and C niences," at five p.m. Chair to be t by Sir Henry Tanner, C.B., I. F.R.I.B.A.

R.I.B.A. Meeting Postponed.

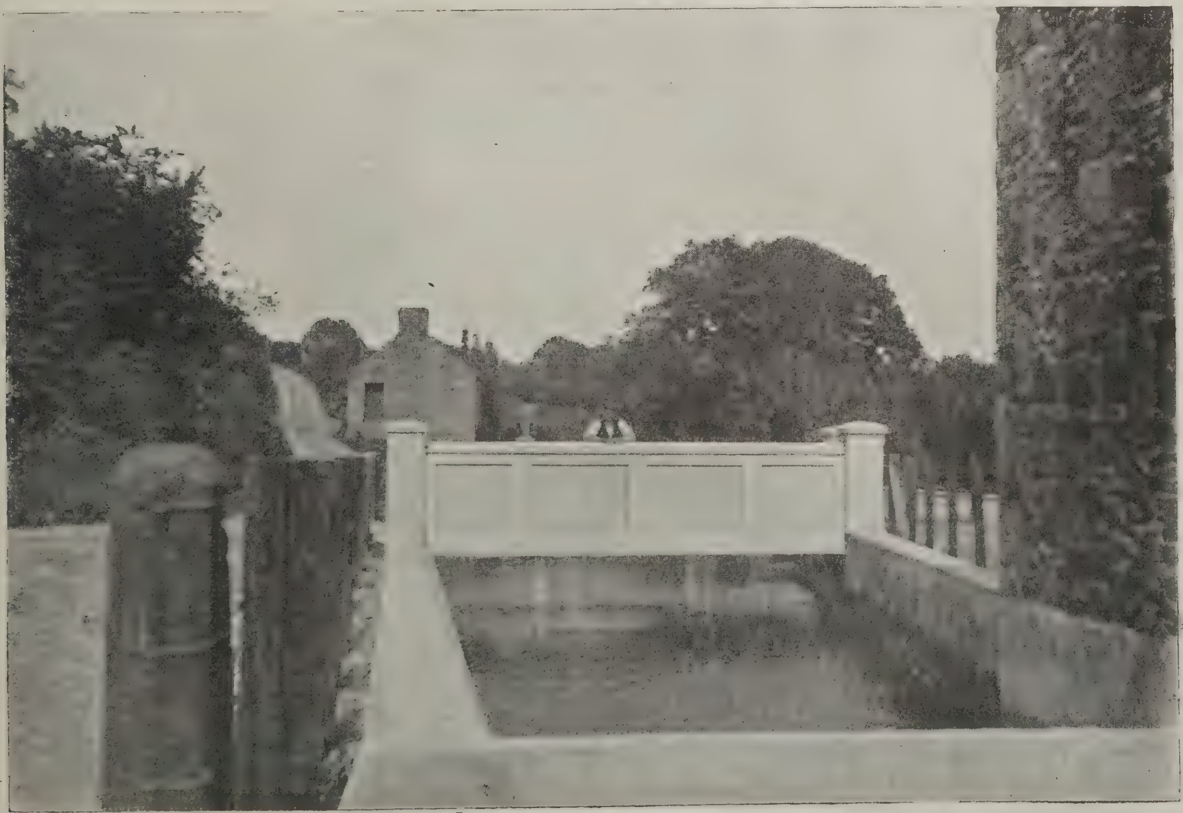
We are asked to announce that th formal conference with engineers on " Relations of Architecture and Engi ing," which had been arranged to be at the Institute on April 17, has been poned.

WAR·BVILDINGS·SECTION

ENGINEERING WORKS IN THE SOUTH OF SCOTLAND.

'HE new engineering works shown by the accompanying illustrations has ely been completed in the South of otland. The whole power is derived m a hydro-electric installation erected the west bank of the river. An im- unding dam running diagonally up the er from the west bank was first erected, d is of mass concrete construction averaging 6 ft. clear depth from the rock river bottom to the working top water level in normal weather, and is battered on the upstream side, vertical on downstream side, and has buttresses at 10-ft. centres on this side. The top of the wall is 18 in. thick. The dam ends in a natural rock division about half-way across the river, and is provided with two sluice gates in its length. The sluice gates are provided to allow for the pool formed by the dam being periodically flushed out, and to provide a free run for salmon smolts returning to the sea. Between the west end of the dam and the west bank of the river a four-gate main sluice is provided, which regulates the water supply to the head-race.

Access to the existing mill buildings



ENGINEERING WORKS IN THE SOUTH OF SCOTLAND: BRIDGE OVER THE HEADRACE.

from the roadway was by means of an arched culvert over the head-race, but since the water level in the head-race has been raised the culvert has been demolished and a new bridge of reinforced concrete has been built. The span of the bridge is 15 ft., and the width is 9 ft. between the parapets. The parapets are panelled on both sides and capped with a weathered and throated coping. The parapets form the main beams of the bridge, with cross beams on the floor at 5-ft. centres, which support a 6-in. reinforced slab. The bridge was designed to carry a five-ton wagon, and the road surface is composed of 1½ in. of granolithic finished with an indent roller. The illustration on page 181 gives a general idea of the finished bridge.

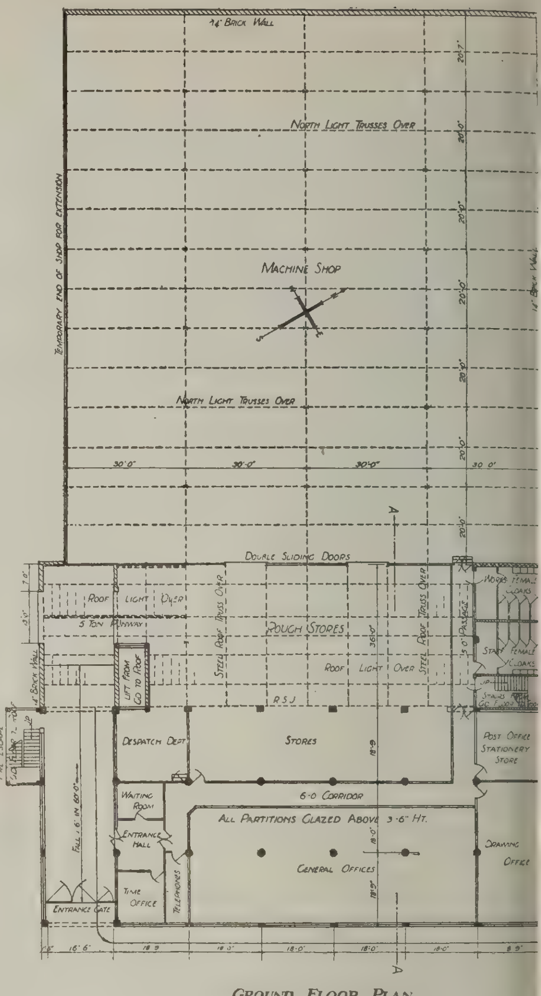
A little distance below the bridge the bed of the disused waterway began to fall rapidly, and it was decided to continue the new waterway from this point to the power house in the form of a reinforced concrete channel. The width of the channel is 13 ft. and the depth 7 ft. 6 in., with an available water depth of 6 ft. 6 in. The side walls are 6 in. thick and span vertically from the bottom slab to a curb beam along the top of the wall. The side walls are supported on 14-in. square columns spaced 20 ft. apart, and act as beams, supporting the 6-in. thick bottom slab. In the bottom of the channel there is a 21-in. by 12-in. longitudinal beam, which also supports the bottom slab, and this beam is supported on a 24-in. by 14-in. transverse beam which takes its reaction on the 14-in. columns. The curb beams at the top of the wall are tied together at 10-ft. centres by 8-in. by 6-in. cross ties. The whole of the internal surface of the channel was rendered in cement, sand, and waterproofing composition, and the work has made a watertight job.

The power for the works is generated by two electric generators driven by two direct-coupled reaction turbines and developing 150 horse-power each at 275-300 revolutions per minute. The difference in level between the top-water level in head-race and water level in tail-race is only 23 ft.

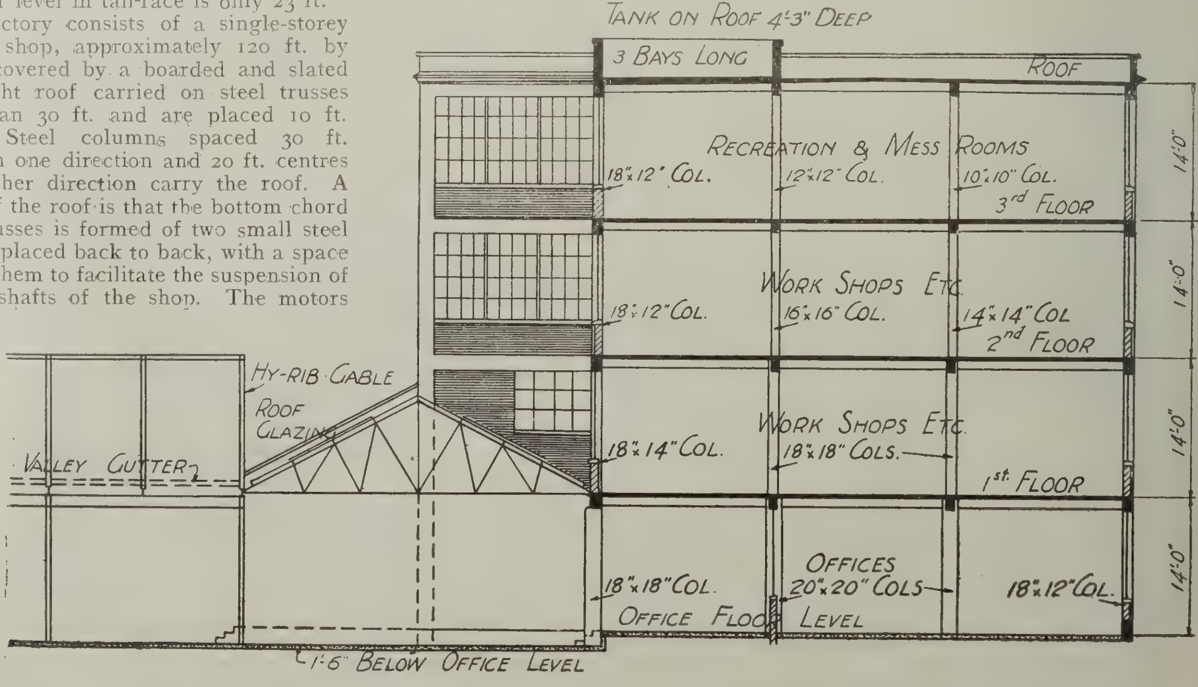
The factory consists of a single-storey machine shop, approximately 120 ft. by 140 ft., covered by a boarded and slated north light roof carried on steel trusses which span 30 ft. and are placed 10 ft. centres. Steel columns spaced 30 ft. centres in one direction and 20 ft. centres in the other direction carry the roof. A feature of the roof is that the bottom chord of the trusses is formed of two small steel channels placed back to back, with a space between them to facilitate the suspension of the line shafts of the shop. The motors driving the shop are also supported on small platforms carried on the bottom chord of the roof trusses. This system, whilst demanding careful consideration on the part of the works engineer at the outset, well repays the expenditure of thought and consideration on account of the saving of floor space due to the absence of heavy main drive belting.

At the south-east end of the machine shop is the rough stores, 90 ft. long by 36 ft. wide, extended on the south-west end 18 ft. to form a delivery and despatching department. Lavatory accommodation is provided at the opposite end of the stores building. The stores are covered by a pitched roof consisting of steel principals 36 ft. span and 10 ft. centres, which carry a boarded and slated roof in which patent glazing is provided on each side of the ridge. The front portion of the factory is 127 ft. 6 in. by 55 ft. 6 in., and is four storeys high, each storey being 14 ft. high floor to floor. Nothing but reinforced concrete is used in the construction of this portion of the factory, columns being spaced at 18-ft. centres in each direction. The first, second, third floor and flat roof are practically identical, consisting of 18 in. by 9 in. main beams resting on the columns and running longitudinally. Secondary beams 14 in. by 6 in. are placed at 6-ft. centres across the building, and these support a 4-in. reinforced concrete slab. The depth of the beams includes the thickness of the floor slab. A portion of the ground floor is allotted to stores, and the remainder is used for offices, main entrance, waiting-room, etc. The floor of the offices is finished with a layer Thermos Patent Flooring.

All the cross beams throughout building are provided with 1-in. diame holes at 2 ft. 6-in. centres and 3 in. from the bottom of the beam, so that sha



GROUND FLOOR PLAN



SECTION A-A

ENGINEERING WORKS IN THE SOUTH OF SCOTLAND: GROUND-FLOOR PLAN AND SECTION.

g may be readily attached, the holes eing formed by embedding lengths of bing in the concrete. In addition to ese holes there are four 3-in. diameter les in each longitudinal bay running the ll length of the building. These are for ghting, distributing cables, and for water d other supply pipes. The first and cond floors are to be used as fitting shops, d the floor finish to these two floors is in. thick granolithic. The third floor is ed for the kitchen and mess-rooms, and r retiring and recreation-rooms for the omen operatives of the works. Three th-rooms with towel-drying racks and an nbulance room are provided. A striking ature of the kitchen is that the whole of e cooking is by electricity, as also is the ot-water system in connection with the tchen. The roof over the third floor is a inforced-concrete flat constructed like e various suspended floors, and is made atertight by two ⅜-in. thicknesses of tural asphalte. A concrete parapet wall hich encloses the roof all round allows to be used as a playground and omenade. There are three water tanks ch 18 ft. square by 4 ft. 3 in. deep on e roof, the bottom of the tanks being at e roof level. Two of these tanks are for ntaining water for trade purposes, which pumped into the tanks from the river. he third tank is for water for domestic rposes, which is derived from springs the hillside 200 ft. above and mile distant from the works. The orage capacity of each tank is 6,800 allons. The arrangement of the supply, aw-off and wash-out pipes permits any the three tanks being cut out for cleang purposes.

Access to the various floors is by a stairse annexe at the north corner of the ulti-storey building. Lavatories are aced at each floor level in this stair and vatory annexe. At the south-west corner the building there is an outside staircase to act, should occasion ever arise, as a fire-escape. This fire-escape staircase was originally designed in steel work, but as reinforced concrete proved to be the cheaper it was carried out in this material. The treads and landings of both staircases are finished in granolithic, with 4-in. wide patent non-slip treads embedded in the front portion of the treads.

The whole drainage for the factory is on the duplicate system, the rainwater being conducted direct to the river. The sewage is taken a short distance north from the works and is passed through detritus tanks, settling tanks, and then over filter beds with automatic distributors, and thence to the river. Owing to the whole of the excavation for drains being in rock, the falls given to all drains were calculated to permit the excavation to be as shallow as possible, the basis for sewage pipes being a velocity of 3 ft. per second when the pipe is working half-bore, and for the rainwater pipes the basis was 2½ ft. per second under the same working conditions. Manholes and inspection pits were provided at all changes of direction, and all soil pipes discharged into manholes with half-pipe inverts.

The factory is heated throughout by hot-water pipes and radiators, and the circulation is forced by means of electrically driven pumps.

The general drawings for the whole scheme were prepared by the writer under the direction of Mr. Wilfred L. Spence, M.Inst.Mech.E., the engineer to the company, and the work was executed by artisans employed by the company ably directed by Mr. A. Shields, general foreman of works. The detailed designs and working drawings for the whole of the reinforced concrete work were prepared by the Trussed Concrete Steel Co., Ltd., Caxton House, Westminster, S.W.1, the reinforcement throughout consisting of Kahn Rib bars.

COST OF BUILDING AFTER THE WAR.*

BY ERNEST H. SELBY, Quantity Surveyor.

The presumptive or speculative prices for work that will probably rule after the war is over will, of course, be affected to a very large extent by the conditions under which peace is made. Taking first the cost of labour, this must be governed by the cost of living, and although house rents have not advanced as yet to any appreciable extent, the cost of living, which seriously affects the pockets of wage-earners, will not, in my opinion, be reduced for some years to come, and I submit that only by the reduction in the cost of living can the wages of workmen be reasonably expected to be reduced.

If it is found possible to specialise in the various trades, so that each man can take up a particular job, or portion of a job, greater efficiency, and consequently greater output, would be the result, and if each task could be arranged so that the workman or workmen employed could be paid by result on a uniform basis, more economical means might be found of executing the work.

The process of rate-cutting by reducing the scale of payment would, of course, tend to slow down the output, but if proper rates, in the first place, are arranged on an equitable basis by the employers, in conjunction with the workmen, and workmen choose to exert themselves, the result ought to be satisfactory, the employers benefiting by the increased output, and the competent workmen would be enabled to earn far more, with the general public benefiting to the largest extent.

Wages Questions.

There were certain specialised trades before the war, such as slating and tiling,

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* Extracts from a paper read before the Surveyors' Institution, April 8.

ENGINEERING WORKS IN THE SOUTH OF SCOTLAND: VIEW FROM THE SOUTH-EAST.

wood block floor, mosaic and other special floor coverings, gauged brick-cutting, fencing, certain forms of metal working, glazing, and many others, where men were employed always at the same thing, and thus became far more expert, where the prices at which these particular works were executed could not be done by ordinary tradesmen. Surely if the work is done, and done properly, and a proper living wage is to be earned, the cheaper the work is done the better for all.

If some sort of a scale of wages were arranged for output, which was not immediately varied directly the employers considered the workmen were earning too much, or varied to suit the requirements of those people whose one idea appears to be to do as little as possible, not only would the cost be in time reduced, but estimates could be much more closely and accurately priced.

As occasion arose, the rates could be revised to suit the particular localities by mutual agreement, and I feel convinced that, in this way, the cost of many materials could be reduced, and a great many savings be effected in the course of working and fixing the materials at the site.

The price of labour will naturally largely effect the cost of materials, and if the labour problem in the production of materials can be entirely solved by payment by results, the cost of materials ought to come down in a reasonable time to something approximating to pre-war rates.

Demand and Supply.

The governing factor in all things, however, has, and always will be, supply and demand, and considering the enormous arrears of work that will have to be taken in hand when the war is over, it is not to be supposed that prices will come down when there is much work about.

The amount of war work now being carried out by the Government, except no doubt the new shipyards extensions, we hope will be promptly closed down, and resumed, if found to be necessary, at some future and more auspicious occasion, thus releasing a large number of men, who, as they are discharged, can be taken on for the more urgent semi-public work, such as repairs to railways, roads, etc., housing, and the reinstatement of buildings temporarily occupied by the military and the Government Departments.

When tenders are again submitted, for some time at least estimating will be more or less of a gamble, until some new and reliable data can be obtained upon which to base the cost of work, and it is not to be supposed that contractors will take all risks unless they are properly covered by prices or insurances.

The same difficulties in pricing that existed before the war will still exist after the war, with the additional difficulties of finance, which will most probably tend to keep prices up.

The cost of materials in this country, with the exception of essentially war materials, ought to come down to some extent quickly, but with regard to the cost of materials that have to be imported from abroad, the matter is far more complicated. Freightage will continue to be high for some time, but the rate of shipping insurance will be largely reduced directly the war is over, a fact which must at once exercise a considerable effect on the price of imported materials.

The first duty of shipping must, of course, be the supply of foodstuffs, and considering the position of this country with regard to the home supply of food, a very considerable amount of shipping will be necessary to replenish our depleted larders. There is also the very large amount of shipping that will be required for the transport of men and materials from the war areas, not only to this country but also to America and the Colonies.

Timber Imports.

To obtain and import timber will be one of the chief difficulties, as the various sources of supply have been largely depleted and dislocated and will take some time to get into working order again, and although it has been found possible largely to do away with the use of timber in construction, yet a certain amount must of necessity be used in every building. The question of being able to obtain timber in any quantity after the war will largely depend upon the length of time the war lasts.

A large amount of home-grown timber has been made use of lately in our war buildings for carcasing work, but usually it has been quite unseasoned, and although the scantlings have been cut down to the smallest sizes, it remains to be seen whether it will prove efficient or not.

Reconstructing the Devastated Regions.

Setting aside the amount of work to be done in this country, where the damage thus far caused has not been very extensive, there is the very serious problem of rebuilding those regions that have been utterly devastated on the fields of battle, and surely this work ought to take precedence over everything else, considering that up to the present those regions unfortunately lie mostly within the borders of our Allies or quondam Allies.

After the calls of nature with regard to food have been met, the housing of the population of the devastated regions must be attended to, and although the numerous temporary buildings erected all over the battle area will be of inestimable value in housing the workmen engaged upon the work of reconstruction, they are hardly suitable for domestic purposes, and, in any event, the majority are of quite a temporary character and would be very costly to maintain, even if that were possible for more than a few years.

I do not think that the fact should be overlooked that in all probability we shall be called upon to supply labour and materials for housing of the people, and possibly a large army of occupation, and at least a portion of the materials for the reinstatement of the factories and business premises in those areas.

Adaptation of Emergency Buildings.

A large proportion of the buildings constructed during the war (excepting those erected for the manufacture of arms and munitions, and even with some of those where time was essential, strange and unusual methods and materials have been adopted) are of a more or less temporary character, and will not be of any permanent use. The numerous factories and additions to existing factories and buildings of that description (erected of a more substantial kind) ought to be capable of being adapted for the production of peace commodities, so that in some measure the call for that particular class of building, which we hope would be in great demand, ought not to be so pressing, unless (after our late experiences) we proceed to at once prepare for the next great war.

For the first nine to twelve months after the war the question of labour will still be acute until a large number of soldiers have returned and settled down to civil life, and during that time building operations w be as difficult, or almost as difficult, during the war, so that during that peri the cost of building will, in my opinio remain at about the level of that at the en of the war, even supposing that th Government do not place an embargo all luxury buildings for some time in ord to push forward their numerous housin and other schemes, which, I think, more than probable. After then, howeve when things have more or less resum their natural courses the cost of buildin should be reduced.

The cost of materials produced in th country has not advanced in the same pr portion as the cost of materials we hav had to import, so that when ordinary buil ings are again erected in a reasonab time, the cost of same ought, and to considerable extent, to quickly come dow from "the during the war prices."

Coming now to the principal questio of what the prices after the war are likel to be, if we take the pre-war rate of buil ing at x, the consequent increased rat after the war will naturally be y.

Much has been said and many conje tures made as to what y will be; one thin I think is generally admitted, that y wi be a plus and not a minus quantity.

Wages, taking into account wa bonuses, have already risen about 50 pe cent., and materials anything from 50 t 500 per cent. It must not be overlooked however, that the great bulk of the wor has been carried on all over the countr and at great stress. Places have bee selected for building operations in mos inaccessible spots, and the difficulties i housing the workmen were frequentl solved by building temporary huttin accommodation, or bringing men in from the surrounding districts by train or oth means of quick transit, and railway com munications had to be formed.

These obstacles have naturally raised th cost of the work as all the workmen' special expenses had to be paid and a allowance made for the extra expense they were put to in living away from home.

These conditions, however, shoul rapidly alter when we return to mor normal times, and although the rate o wages (exclusive of the purely wa bonuses) will take some time to be re duced—if it is ever reduced—yet the tota cost of the work may not be very greatl increased thereby if a little more latitud is allowed in the construction of building and some system of co-operation adopte between masters and men before referre to.

Passing over the period of the first nin to twelve months after the war, by whic time we may expect to have returned t something like normal times, we shall als return, we hope, to ordinary building conditions.

Separating the constructional work and the finishings of a building, which in ordinary buildings, excluding factories, can be taken as roughly about half-and-half, the constructional work is largely made up of materials, while the finishings take a greater percentage of labour.

Taking the constructional part first: the cost of materials manufactured in this country will, in my opinion, soon return to about the pre-war cost, that is, to say within about 15 per cent. with the exception of constructional steelwork, of which very large quantities will be required for shipbuilding; ferro-concrete ships will have to be proved, and I understand there are many serious objections to their use.

(*Continued on page* xi.)

(*Continued from page* 184.)

wever, the enormous increase of plant
producing steel all over the world may
shortly reduce the price considerably.
different methods are adopted of deal-
with labour on the job, here, again, I
ık, the cost of output will not be more
n 20 per cent. to 25 per cent. additional,
that the cost of the constructional work
ht not to exceed 18 per cent. over pre-
r prices.

he finishings, however, stand on a
erent footing, especially with regard to
ber. The cost of finishings will, in my
nion, be increased at least 35 per cent.,
that, taking ordinary buildings, the
ra cost will be about 27 per cent., and
tories and buildings, when the finish-
s are of small moment, about 22 per
t. above pre-war prices.

We hope to find room, in a future issue,
further extracts from Mr. Selby's
uable paper, in the opening portion of
ch he discussed the functions of the
ntity surveyor and the present position
ffairs.]

(*To be continued.*)

OBITUARY.

Mr. George Martin.

Ir. George Martin, of Emsgarth,
rnemouth, who has died at the age of
y years, was for many years chairman
managing director of Messrs. Jenkins
Sons, Ltd., builders and contractors,
ournemouth and Southampton.

Mr. G. Warren.

Ir. George Warren, builder, Cressing
d, Braintree, who has died from shell-
poisoning, was a well-known builder.
Warren's two elder sons, who are
ders, being on service with the Army,
in addition to carrying on his own
iness, was managing the businesses of
sons during their absence.

Mr. H. D. Blake.

he directors of the Limmer and
nidad Lake Asphalt Company, Ltd.,
ounce, with deepest regret, the decease,
is home, "The Haven," Red Post Hill,
wich, S.E., on Thursday, the 4th inst.,
Ir. H. D. Blake, who was a director of
company, and who relinquished his
ition as managing director on the 31st
The interment took place at three
ock on Wednesday, April 10, at Forest
Cemetery.

Mr. Joseph Siddle.

he death of Mr. Joseph Siddle, of
market Street, Consett, at the age of
ty-five, removes the oldest tradesman
the town, where he had carried on
iness as a painter and decorator for
y-four years. Born at Shotley Bridge
January 28, 1833, he was the youngest
of the late Mr. George Siddle, who ran
first stage coach between Shotley
dge and Newcastle. The deceased at
assisted his father in the coaching
iness, and his reminiscences of the old
ching days were exciting and vivid,
n the Derwent Vale village was a
ionable health resort. Mr. Siddle
t to "Berry Edge"—afterwards called
sett—and began business as a painter
decorator in Harvey Street in 1854.
ough he retired from active participa-
in the business of the firm some years
, the sons still carry on under the name
"Messrs. Joseph Siddle and Sons."

BRITISH ARTISTS AND BRITISH GENERALS.

We have received from the publishers (Offices of "Country Life," Ltd.) two further numbers of war-time publications —(1) "British Artists at the Front," and (2) "Generals of the British Army." Part II. Both have a particular interest at the present time—the one showing, through the medium of Mr. C. R. W. Nevinson's vivid colour-drawings, incidents in the lives of our gallant men and views of the battlefields over which they are so valiantly fighting; and, the other, a collection of portraits, by Mr. Francis Dodd, of twelve of our generals, upon whose skill in leadership so much depends. "British Artists at the Front" is the sequel to "The Western Front," which was illustrated entirely by Lieutenant Muirhead Bone. In the present publication the work of various artists will be reproduced. Mr. C. R. W. Nevinson illustrates Part I., Sir John Lavery will be responsible for Part II., and among other painters who have received facilities from the War Office for this purpose are Lieutenant Paul Nash, Mr. Eric Kennington, and Lieutenant James McBey. To the present number Mr. Campbell Dodgson contributes a note on the artist, while Captain Montague writes the introduction and descriptions. Mr. Francis Dodd has been given special facilities by the War Office to make the series of portraits of British Generals, and most of the sittings in connection with the present number were obtained in France. The price of each publication is 5s. net.

THEATRE CONSTRUCTION AND AERIAL WARFARE.

In view of the new conditions created by the latest application of aircraft to warfare architects are reminded by a writer in the "Era" of the need for bomb-proof construction, particularly in the case of theatres.

So far as existing theatre buildings are concerned the architect has never been called upon to consider the possibility of attack from the sky, and, having complied with all requirements on the part of his clients and those responsible for the administration of building regulations, he has been free to deal with the question of roof design and construction in such manner as to satisfy artistic taste and to give efficient ventilation. The problem now imported into the design of theatres and kindred structures is to provide safety against hostile air attacks, so that the theatre of the future may not only be a safe place during actual performances, but also be capable of use as a public shelter in times of war. The solution of this problem is best attained by the use of reinforced concrete, a method embodying the scientific combination of concrete and steel, which has already been employed in the construction of more than four hundred theatres and public halls in this country and other parts of the world.

As examples, the writer cites alterations to the Tynemouth Palace Theatre; the Central Hall and the Sauchiehall Picture Salon, Glasgow, where there is a tea-garden laid out on the reinforced-concrete roof of the theatre; the Hillhead Picture Theatre, also at Glasgow; and several theatres and opera-houses on the Continent.

Do Scientific Methods *of* Fuel Utilisation Pay?

UNDOUBTEDLY they do, in every direction. A factory in war-time does not increase its annual consumption of gas from four million to fourteen million cubic feet—another from three million to fifteen million—a third from one million to forty million—unless there is profit in it for the individual firm.

At the same time the nation benefits when gas is used instead of coal—by the decreased drain on its not inexhaustible coalfields, and by the production of dyes, drugs, explosives, fertilisers, and other valuable substances lost when crude coal is consumed.

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GENERAL Foreman, disengaged; particularly well up in reinforced concrete construction and up-to-date methods. Overseas Army discharge. Carpenter.—Address G. F., 102, Percy Road, Shepherd's Bush, W.12.

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EXAMINATIONS will be held on the follov dates:—the INTERMEDIATE on June 7, 10, 11, and 14, 1918. Applications must be sent in o before April 27th. The FINAL and SPECIAL AMINATION on June 27, 28, 29; July 1, 2, 4 Applications must be sent in on or before May

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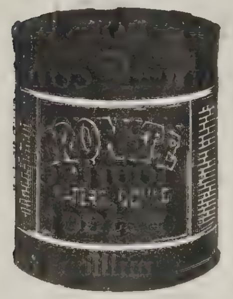

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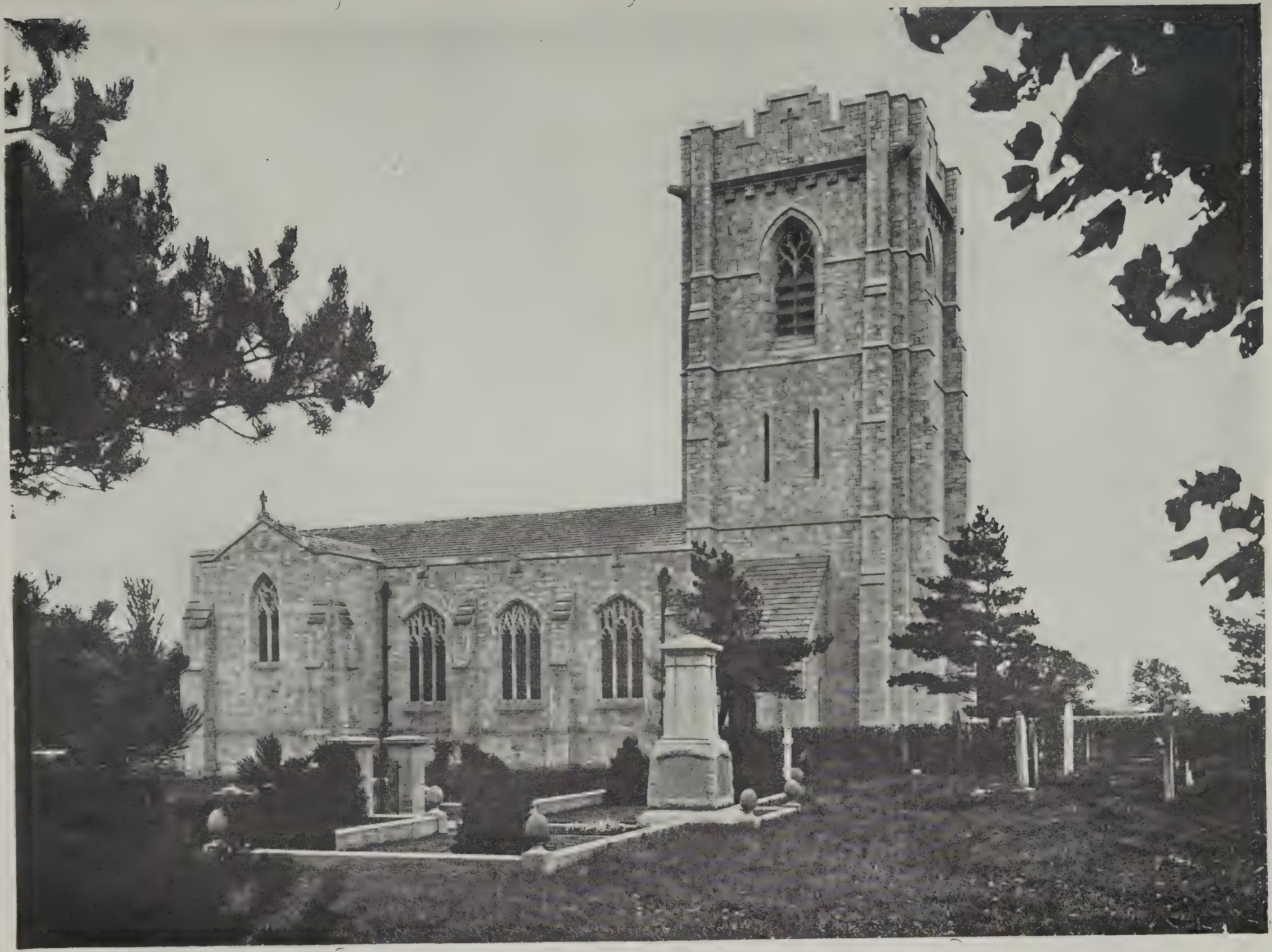

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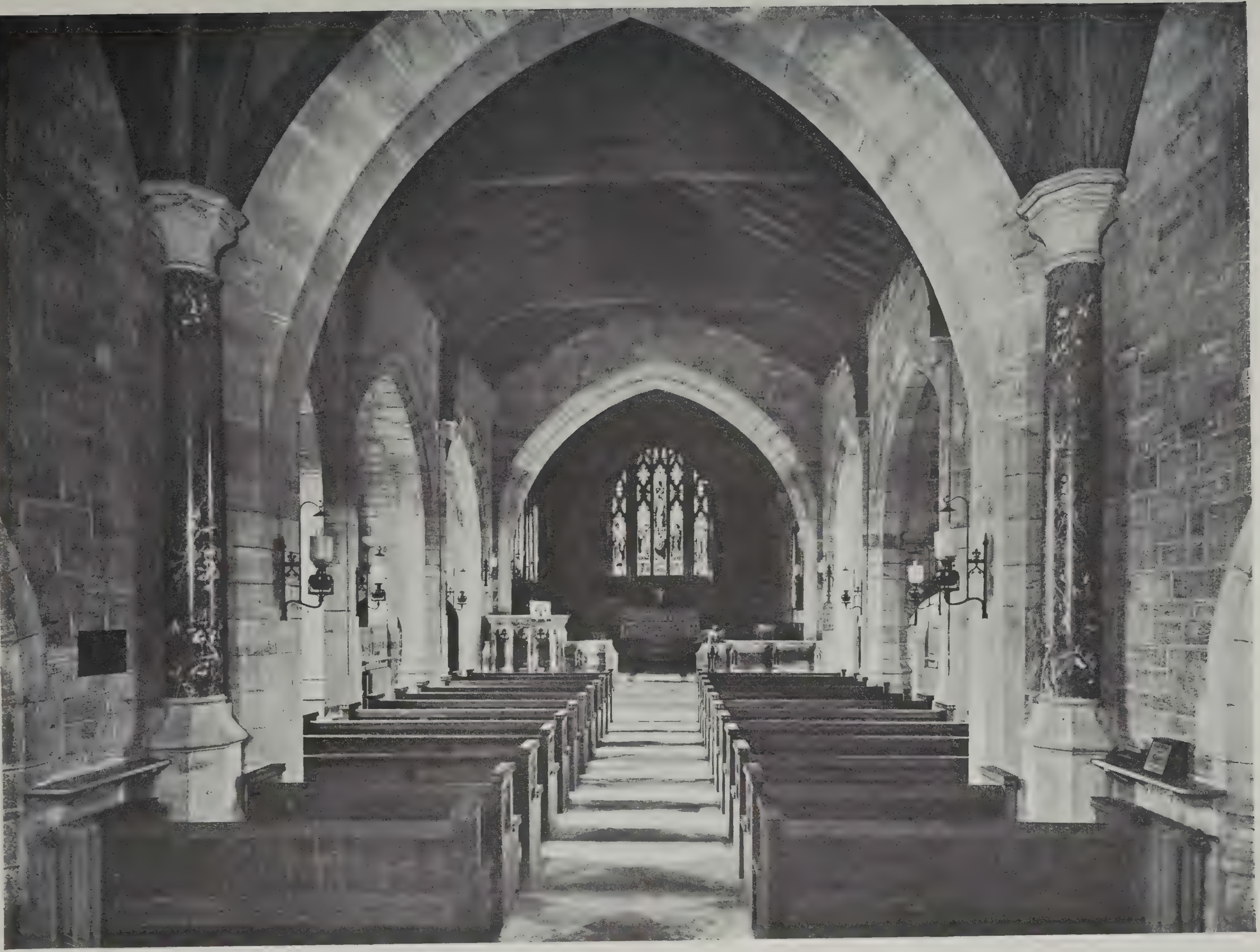

CURRENT ARCHITECTURE (SERIES V.). VII.—WINKSLEY CHURCH, RIPON, YORKS: VIEW LOOKING EAST.

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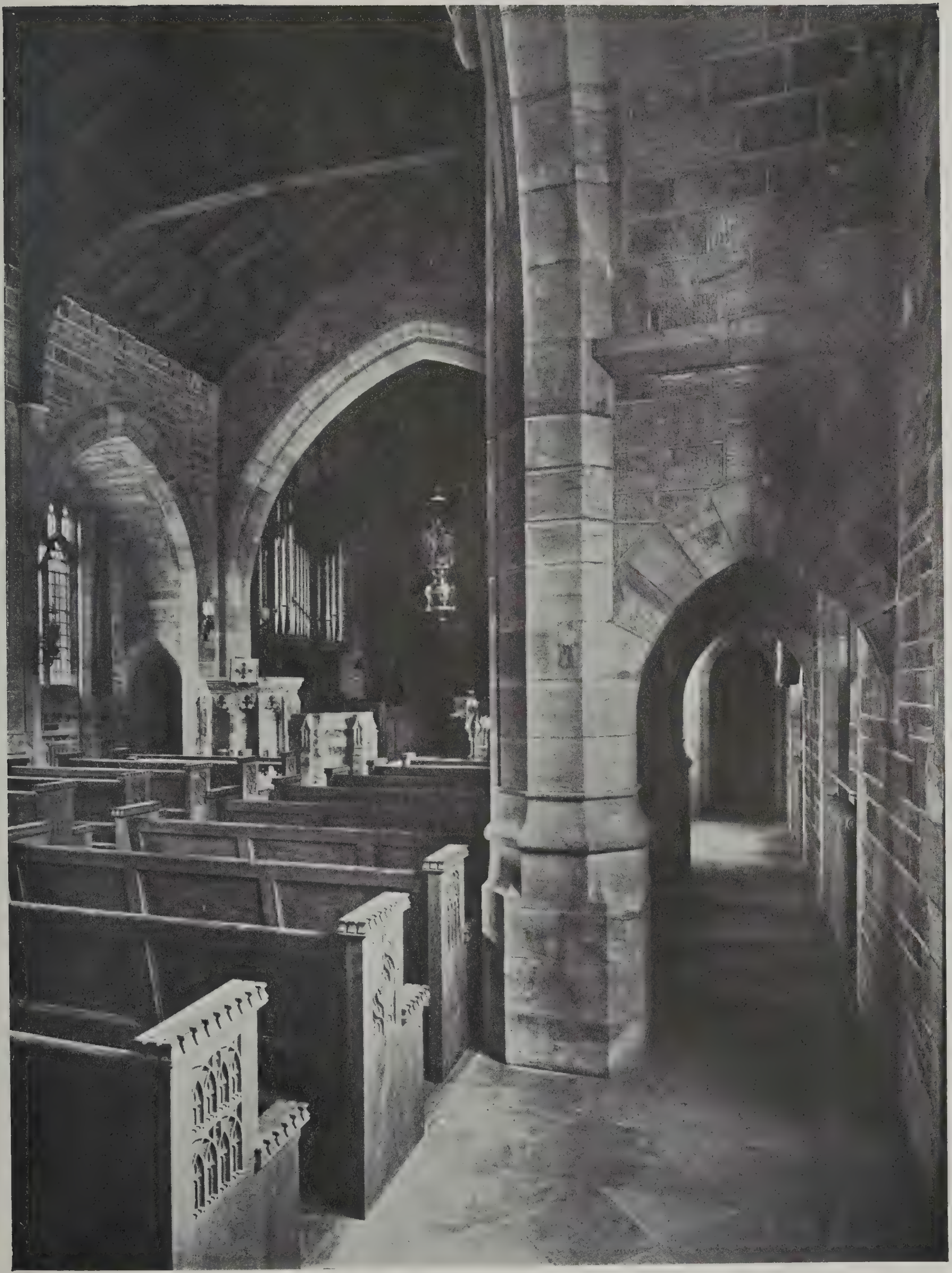

CURRENT ARCHITECTURE (SERIES V.). VIII.—WINKSLEY CHURCH, RIPON, YORKS: VIEW LOOKING NORTH-EAST ACROSS NAVE.

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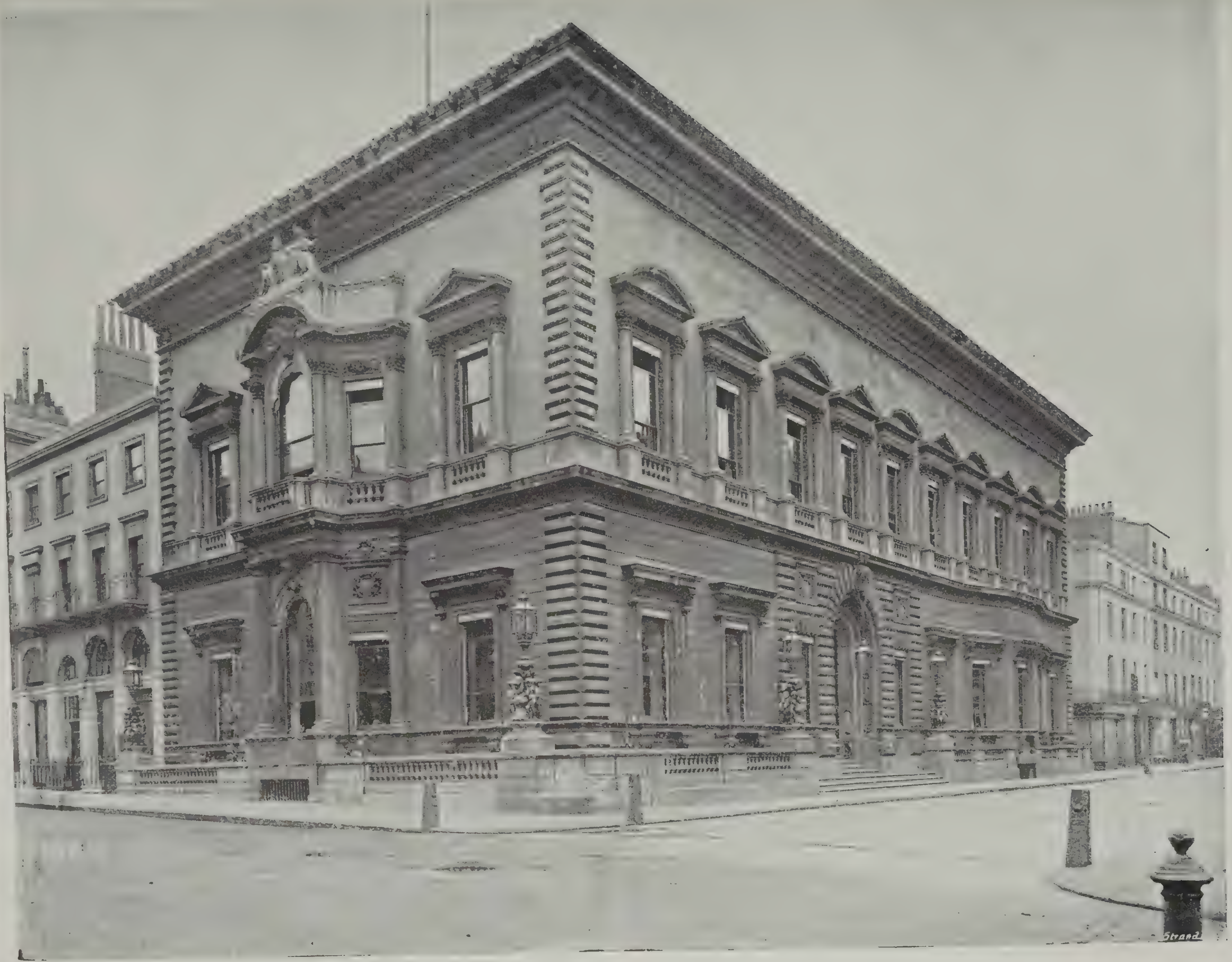

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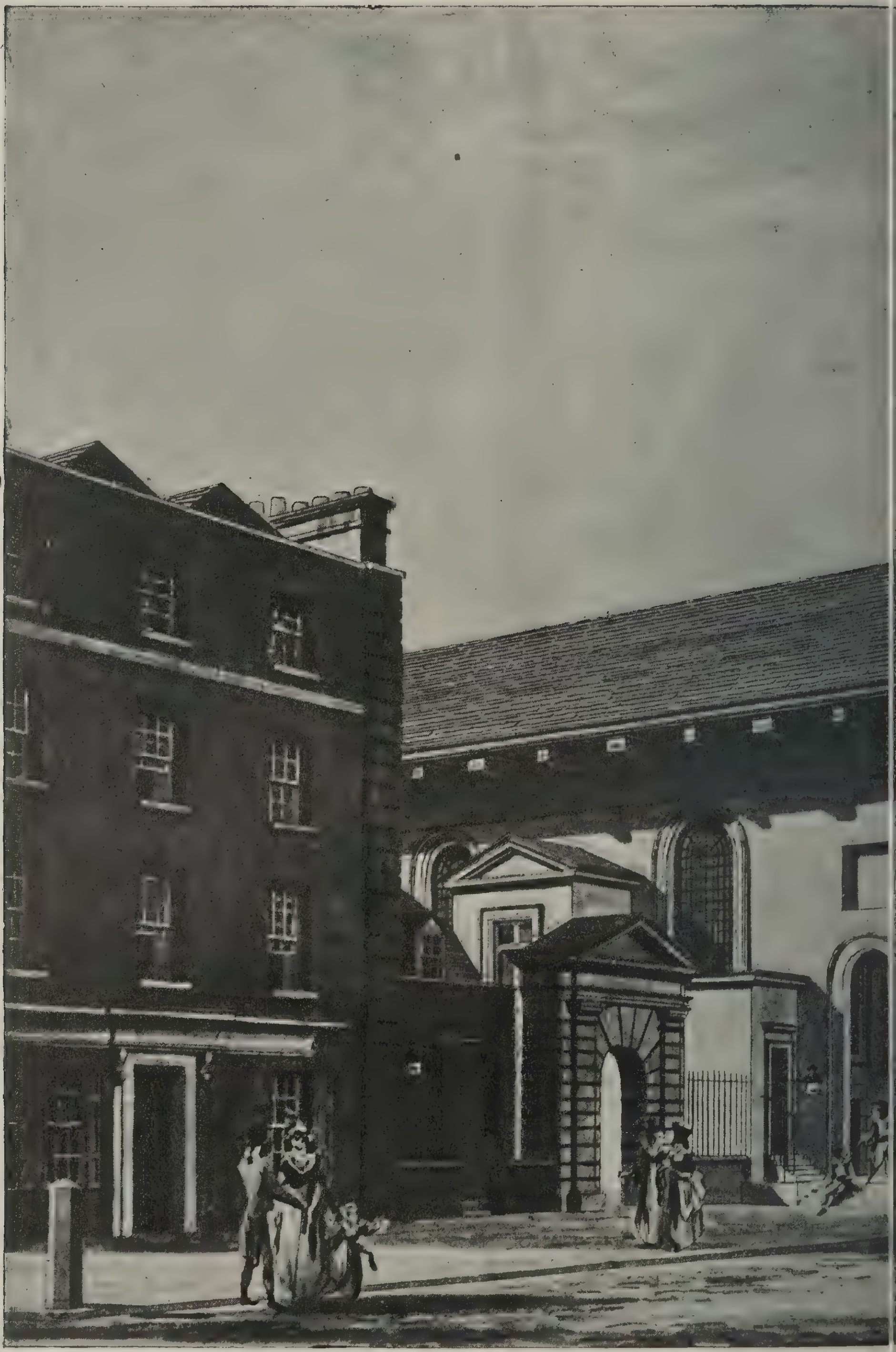

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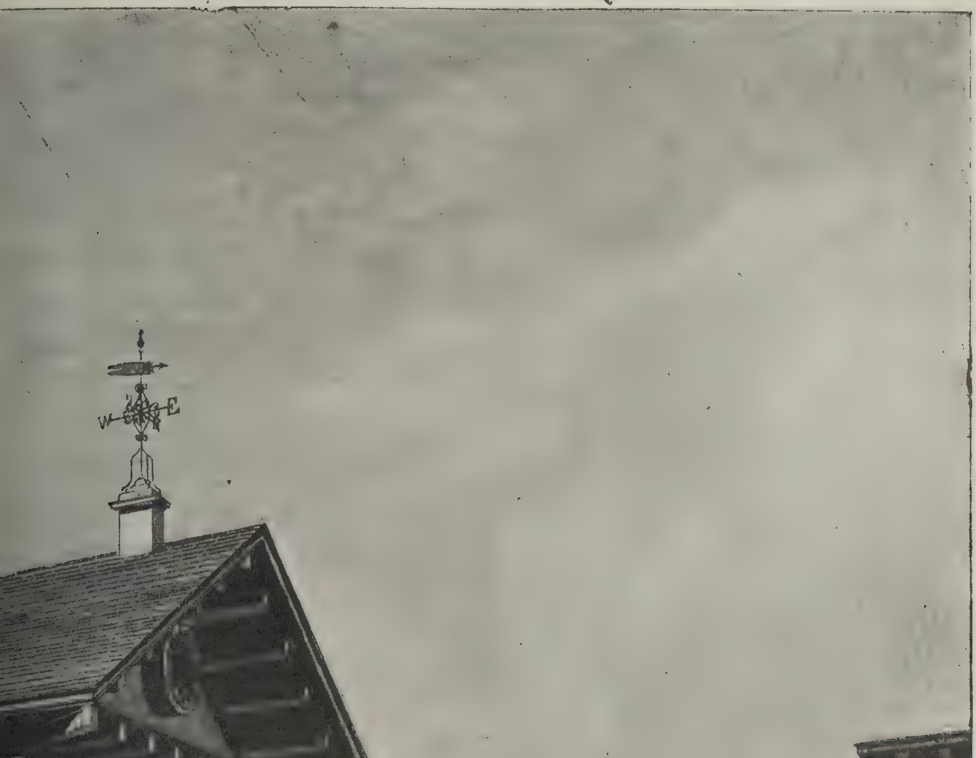

ENT GARDEN, LONDON, IN THE LATTER PART OF THE EIGHTEENTH CENTURY.

ARCHITECT.

rawing in the British Museum.)

THE ARCHITECTS' AND BUILDERS' JOURNAL.

APRIL 24, 1918. TOTHILL STREET, WESTMINSTER. VOLUME 47. No. 1216.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery. Casual purchases—now here, now there—create a serious discrepancy between supply and demand, and cause wastage of effort and materials.

VERY wisely, the Ministry of Reconstruction has appointed a committee to ascertain what steps may be taken to ensure adequate supplies of all kinds of building materials immediately after the war shall have ceased. No time has been lost by the committee in getting to work, for it is realised that the collection of such information is a task of considerable magnitude, and that the end of the war cannot now be very far off. In drawing up the forms upon which the returns are to be made, the committee have had the assistance of the Royal Institute of British Architects, the National Federation of Building Trades Employers, and other organisations, and the resultant forms should therefore inspire more confidence than the average official document. They relate to three main contingencies—to new works not yet begun, to works that were suspended by direction of the Ministry of Munitions, and to works that local authorities propose to undertake. Copies are to be sent to architects, builders, and municipalities, throughout the country, and it is imaginable that the mass of data returned for collating and sifting will provide a formidable task for an army of experts. Those upon whom the duty will devolve of adjudging from the digests the order of precedence will necessarily occupy a most unenviable position. They are about as likely to give general satisfaction as the judges at a baby show. In mercy to them, their identity should be most scrupulously concealed, although it would, on the whole, be more satisfactory if they boldly came into the open—to be shot at. Then they would qualify (with the naval lieutenant who checked his commander's king at chess, and the private who grew a finer moustache than Nature had ordained for his sergeant) for inclusion among "Punch's" "Deeds That Deserve the V.C."

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Are the prevalent views on education all wrong? Professor Wallace, of Edinburgh University, where he lectures on agriculture and rural economy, has no doubt about it: his answer to the question is emphatically in the affirmative. In an "Open Letter to the Right Hon. David Lloyd George," which he publishes in the form of a pamphlet through Messrs. Oliver and Boyd, he urges postponement till after the war, as well as the effective recasting, of the English and Scottish Education Bills—"legislation dangerous," he declares, "to the stability of the Empire and subversive of the soundest canons of education." He finds that the existing system of education is not practical enough. It is too bookish. "It completely fails to interest or to educate the great mass of children. Those who have practical experience of the work of education—and these are the only people whose views are worthy of serious consideration—know too well that not more than 15 per cent. of the child population possess the brain capacity and the power of application needed to enable them to prepare to earn their living by 'literary,' or more than manual, pursuits." Manual labour, he argues, is for eighty-five per cent. of the population the business of life, and they grow up indolent, and even vicious, because they are denied the opportunity to do something with their hands—work in which they would be intensely interested—and are set to tasks that they loathe and from which they get no benefit: "only a limited number of children are capable of taking advantage of their opportunities, and the time is spent by the others mainly in trifling and in putting in time doing nothing." These truths have been long known—for in the main they are recognisable as truths, although the percentages are suspect; but it is difficult to act upon them. It is not easy to separate the sheep from the goats. Parents insist strongly on "equality of opportunity." If dull Tommy Smith were set to gardening or woodworking, while bright Johnny Jones was enouraged in French and mathematics, Mrs. Smith would make any sort of education impossible, for her Tommy, on Professor Wallace's showing, represents eighty-five per cent. of the population of school age. To say this is to illustrate Professor Wallace's own statement that "trouble immediately begins when it is proposed to put basal principles into practice, because so many unpractical ideas have been long accepted without investigation by unpractical people—a large majority of the public—who dabble in education." That, however, is no reason why the facts and principles should not be occasionally restated; and in spite of a rather intolerant tone, and of here and there a splenetic outburst of indignation, Professor Wallace's pamphlet should help considerably towards a clearer perception of what educational methods are and what they ought to be.

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Professor Wallace's demand for postponement of the Education Bills is not likely to meet with much support. They satisfy an immediate demand for progress in education, and to say, "Oh, reform it altogether!" is to assume the voice of one crying in the wilderness. A population consisting of eighty-five per cent. of fore-ordained hand-workers is not likely to embrace with enthusiasm ideals of any kind—especially those that involve an admission of incapacity. Step-by-step progress is the utmost that can be hoped for, and the Education Bills give us a step that seems to be in the right direction. Then, as Professor Wallace seems rather to feel, his plea for manual work as a valuable instrument of education is likely to be seriously misconstrued. Both theoretically and in practice, it would be twisted into an evasion of the demand that the exploitation of child-labour shall cease. This misinterpretation would be grossly unfair to Professor Wallace, the purity of whose intentions is beyond dispute; but it would nevertheless operate disastrously. That is one reason why manual instruction has made so little headway, and why outdoor work is largely left to voluntary effort. Another reason is the jealousy of the trade unions lest practical training should decrease wages by increasing the number of skilled workers. Thirdly, there is the great obstacle that Professor Wallace indicates in his last paragraph, in which he urges, soundly enough, "That in place of manual labour being classed as a sort of veiled slavery to be ashamed of it should be put in the forefront of any educational system for the masses." True, up to a certain point. But the masses will cease to be ashamed of manual labour when the classes set the example, and there are many reforms to accomplish before "the dignity of labour" can become more than an empty phrase. We could wish that others would take up this cause with the knowledge, skill, and vigour which Professor Wallace is devoting to it. His qualifications and opportunities, however, are exceptional. One ground of hope for a saner view of manual labour is that the war has taught women to respect it. Having engaged in it so extensively, they will no longer despise it: and this is a matter in which the influence of women is enormous. They will not object to "rough work" for their sons now that they have done it themselves and have realised its value.

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Certainly one great blot on the Education Bills is their failure to make due provision for technical education, of which it scarcely touches the fringe. In this respect Mr. Fisher seems rather to follow the bad old tradition which assumes that if you take care of general education, technical education will take care of itself. Much waste could be avoided if all the technical institutions in the country were placed under some sort of systematic central control, and were linked up not only with like institutions, but with those of a different order—the architectural schools with the building and engineering schools, for example, with a regular interchange of teachers and students, and a joint board of control. Surely education should not be spasmodic and sporadic, but harmonious and consecutive, at least to the extent that each department should be in sufficiently close touch with all the other departments to secure mutual help, advantage, sympathetic understanding of each other's aims and difficulties. All professions and industries could, if they would, rally and unite round the standard of education, with the object of making the utmost possible use of all our resources in intelligence and materials, and we might then have, supplementary to the Ministry of Education, and relieving it of most of its collar-work, as well as preventing it from ever lapsing into a condition of stalemate, a Parliament of Education. Liberally constituted, and embodying all the practical wisdom of the community, such an organisation should ultimately bring about a cent.-per-cent. increase in the educational efficiency of the nation, with a corresponding accession of wealth and welfare.

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It is rumoured that the church of St. Mary Woolnoth, in Lombard Street, is again threatened with extinction. We trust sincerely that the would-be destroyers may not have their wicked way, for the church has many claims to preservation. It would have been ruthlessly destroyed some years ago, when a Tube railway station was built near it, but for the intervention of Sir H. C. Richard, K.C.—him who left the bequest for the restoration of St. Paul's Preaching Cross, and whose intentions were interpreted by the Dean and Chapter as being virtually met by the erection of the very dignified architectural monument which Mr. Reginald Blomfield designed and the very distinguished statue which he induced Mr. Norman Mackinnell to model. St. Mary Woolnoth, which was built by Hawksmoor in 1727, has more originality than beauty, and has been rather fatuously compared with the church of St. Sulpice, Paris, which it resembles in being a church, but in no other respect. St. Mary's has a solid, flat, close façade, whereas that of St. Sulpice is liberally pillared and arcaded or colonnaded on two storeys. St. Mary's is noted for its very peculiar tower, which is almost as wide as the church, but has very little depth, and is surmounted by two small turrets that look as if they had been added as an afterthought to graduate the skyward ascent The turrets of St. Sulpice flank the building, and rise in two stages, a round crowning a square. To the gentleman who saw a resemblance between these buildings, chalk must look like cheese.

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In some other particulars this authority goes rather widely astray. Having imagined the resemblance, he is anxious to absolve Hawksmoor from a suspicion o plagiarism. Servandoni, he says, did his work at St Sulpice some years after St. Mary Woolnoth was completed. He did: he completed the front, with its fin portico, in 1745—a trifle of eighteen years after. Bu our author conveys the impression that Servandon was the author as well as finisher of St. Sulpice, o which, however, the first designs were made by Levau and the first stone was laid by Anne of Austria in 1655 Gittard and Openhard carried on, but the wor languished for want of funds until, in 1742, the rector Languet de Gergy, raised funds by a lottery. Afterwards Servandoni was called in; but the two turret were raised by Maclauren in 1749, and the norther one is as Chalgrin left it in 1777. It is 210 ft. high and three bells were placed in it in 1824, the heavies weighing 12,500 lb. Servandoni's portico comprise a double range of Doric columns 40 ft. high, suppor ing a gallery and colonnade of the Ionic order. pediment above the gallery was destroyed by lightnin in 1770 and a balustrade was substituted. It wa rather cruel to bring our poor little St. Mary Woolnot into a comparison which turns out to be sheer contras

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About the Man-Power Act there is little that ca be discreetly said. If Parliament, in its wisdom, se fit to pass such a measure, it is not for us to say th it is unnecessary. We should be met at once with charge of sectional selfishness, and told that we ha more regard for our private affairs and personal co venience than for our country's need. Patriotis demands that we should suffer and be silent. Y this charge of selfishness would, generally speakin be most unfair. Large numbers of men will eage embrace this opportunity of rendering direct servi to their country. Self-interest is by no means the chi ground of protest. A general call-up of men betwe forty and fifty includes those who have reached t period of life at which they are best able to conti and direct business, and but ill able to endure physic hardship. Let it be admitted, however, that person hardship does not count. Then what the Governme have to consider very seriously is whether it is in t best interest of the nation to withdraw these m from businesses which without them must in countle instances collapse, to the great detriment, sooner later, of the national prosperity. Only the dir necessity could justify any such sacrifice. Possib that necessity has arisen, or is visible on the horiz At all events, it is wise to prepare for it. And we a rather inclined to suggest that the preparation sho have been made much earlier. Then it would ha been recognised as purely precautionary, there wo have been no suspicion of panic legislation, and this time it would have been ascertained what th elderly men can or cannot do. It might have be learnt, for example, that some of them can build, control building, and would be far more profita employed on work with which they are familiar th on that which any unskilled labourer could do. trust that, even now, the small percentage of men be called up will be selected with careful discrimi tion, having regard both to the man's prospective u fulness to the State and to his present value to business in which he is engaged.

HERE AND THERE.

ATS! It is a fascinating subject, or Browning would not have written the "Pied Piper," nor Southey his "God's Judgment on a Wicked op." And it is topical. Also it has some slight ing on building. Rats, it appears, are doing age estimated at £40,000,000 a year—that is, they ume or destroy food to that value, and Viscount plin and Lord Lambourne have issued to farmers rgent appeal to do their utmost to stay this plague. se two noble agriculturists have evolved this endous estimate of forty millions sterling per im by bringing up to date the computation of Sir es Crichton Browne, who in 1908 assessed the age at fifteen millions. "If," say their lordships, u could afford to keep rats in 1908, you certainly iot do so in 1918. Still less can the nation afford eep them at a moment when every sack of corn is ntly needed." What, then—shall we be rat-en, or ridden of rats?

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ext we are told that, apart from what they spoil, rats will eat a quarter of corn every year—"the ly bread ration, according to Lord Devonport's , of your wife and yourself. Which do you wish ed?" Rats and rationing match not well together. th Shylock—a food-economiser: for was not his f complaint against Lancelot Gobbo that he was uge feeder"?—"There be land-rats and water- —I mean pirates." And the water-rats or pirates ie U-boats deplete our granaries quite sufficiently, out the help of their friends and compatriots the ioverian rodents. For the common brown rat *s decumanus*), although supposed to be of Asiatic in, came to us as a part of the retinue of the ioverian succession, and gradually displaced the k rat (*M. rattus*), which by now would have been nct but for introductions by ships. And the f rat legends come from Germany. As Browning s, "Hamelin Town's in Brunswick, By famous iover city"; and there "Rats! They fought the s, and killed the cats, And bit the babies in the lles, And ate the cheeses out of the vats, And ed the soup from the cooks' own ladles, Split open kegs of salted sprats, Made nests inside men's day hats, And even spoilt the women's chats, By vning their speaking With shrieking and squeak- In fifty different sharps and flats." At Hamelin were a mixed crowd—"Great rats, small rats, rats, brawny rats, Brown rats, black rats, grey , tawny rats."

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ll the rat and mice legends seem to have been le in Germany, and several of them refer to an iabit of bishops of burning people assembled in is for that purpose. Perhaps they are all variants he Hatto tradition. "This Hatto, in the time of great famine of 914, when he saw the poor exceed- y oppressed by famine, assembled a great company iem together into a barne at Kaub, and burnt them, . because he thought the famine would sooner se if those poor people were despatched out of the ld, for, like mice, they only devour food, and are io good whatsoever"—a mediæval anticipation of "cannon-fodder" theory. The Mouse Tower, re the bishop was devoured by rodents, is "in a e green island in the midst of the Rhine, near the n of Bingen." Similar stories are told of Widerolf, iop of Strasburg, Bishop Adolf of Cologne, iherr von Güttingen, Count Graaf, and others.

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lats, it is said, breed faster than any other kind of nin, beginning at four months old and producing ten or more to the litter. Any soldier from the trenches will tell you that rats take high rank among the horrors of war. Not but what one can get used to them. I once lived in a house that was riddled with rat-holes; not a floor in it but was perforated. All food had to be kept in huge earthenware pans with heavy lids to them. "Oft in the stilly night" have I kicked a huge rat off my bed, the creature's weight having awakened me. What I least liked was feeling their whiskers tickling my face. We had a cat that was a splendid ratter, but he could not keep the house clear of them. I imagine that they made concerted attacks on him; for one morning when he laid four of them at our feet, we noticed that he had been rather severely bitten in the rear. A rat will fight desperately when cornered, and it is not every cat that will face him. I once saw, in a back garden, a huge red cat chasing a rat, which, balked in its flight by a wall, turned suddenly on the cat, which fled in terror. As I stood watching this strange incident, I held in my arms a young Collie pup, which sprang away from me and had broken the rat's back before I could realise what was happening. Thenceforward that Collie was as deadly a ratter as any rough-haired terrier of them all. He would watch a rat-hole patiently by the hour, and if a rat appeared, would seize it unerringly and lay its body at my feet.

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There are still cunning men who pursue the ancient calling of ratcatcher. Cornelius Vischer, the famous Dutch engraver (born 1610), has left us a masterly picture of a Dutch ratcatcher—a bizarre figure of a man, as fantastically clad as, following the legend as related by Verstegen, Browning made his Pied piper. The Dutchman has a wooden leg, carries a long sword with a dead rat dangling from the hilt, and bears on his shoulder a banneret showing the figure of a rat. Dead rats are suspended from its staff, and from the man's girdle. His breeches are richly embroidered, and he wears a huge starched ruff, and round the rim of his battered sugar-loaf hat what appear to be weasels are frisking. A copy of this vigorous engraving is given in Chambers's "Book of Days," where also it is stated that Annibal Caracci included among his "Cries of Bologna" a somewhat similar figure of a ratcatcher.

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Rat lore includes "a prevalent notion in past ages that you might extirpate rats by a persevering course of anathematising in rhyme. Reginald Scott says that the Irish thought they could rhyme any beast to death; but the notion was, in general, restricted to the rat." This explains an otherwise obscure saying by Rosalind in "As You Like It": "I never was so berhymed since Pythagoras's time, that I was an Irish rat, which I can hardly remember." Among the superstitions about rats the most common is that they have a premonition that a ship is going to sink or a building to be burnt, and desert it well in advance of the catastrophe. This cunning seems to have forsaken them when, some years ago, a large granary on the Surrey side of the Thames took fire. They did not desert the building until it was well alight, when the river became thick with them, thousands of them swimming over to the opposite shore. How dense a population they are in a City building you may realise on its demolition. I have seen hundreds of them, dead and alive, in a City basement.

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They have been known to cause fires by biting lucifer matches, by gnawing through the wooden supports of gas-pipes, and thus causing the pipes to sag and break, and, it is said, by biting into the very pipes, though this is rather incredible. It is more credible that they have often caused the collapse of roofs and floors by eating through stout beams. Why should they do this? A rat is a cunning creature, and knows very well that his exits and his entrances lie through the shallows of floor or wainscot; but when he has got all the holes he wants—and he seems to know the danger of having too many—he must needs exercise his teeth on something substantial, otherwise they would grow to inordinate length; and thus a few able-bodied rats can make a large building thoroughly unsafe. Besides, they spread epidemics—introduce them, in fact, from abroad. A price should be set on their heads. They should certainly be exterminated. When all the buildings are of reinforced concrete, and all the stables are converted into motor-garages, rats will desert the town for the country, where, as my Lords Chaplin and Lambourne have agreed to recommend, the farmer, with the aid of the rough-coated terrier, the owl, and the ferret, must do his diligence to render them extinct. He should beware of importing the mongoose, however. It is, as Kipling has shown in a fine prose epic, the prince of vermin-killers; but, alas! it kills poultry wholesale, as well as sundry other feræ that are much bigger than "mice, rats, and such small deer."

DIOGENES.

THE PLATES.

An Oak Panel of the late Fifteenth Century.

THIS panel, belonging to the Perpendicular Gothic period, affords good evidence of the skill both in design and craftsmanship that had been attained by the wood-carver towards the close of the sixteenth century. Of perfect geometrical formation, it is virtually a transcription in wood of the elaborate window tracery characteristic of the period.

An Eighteenth-century Chimneypiece.

This chimney-piece, now in the Victoria and Albert Museum, is of carved and painted wood, the Corinthian columns being backed with marble pilasters. The architrave is ornamented with a frieze of infant satyrs among vine branches, some of which are missing. The height is 5 ft. 9 in. and the width 7 ft. 2 in.

Public Health Offices, Ipswich.

This building, completed in 1917, is designed as an educational centre as well as for treatment of out-patients—particularly of infants and children. The school clinic department is intended for the treatment of minor ailments such as ophthalmic and skin diseases, and for minor surgical operations such as removal of tonsils or adenoids; and for this purpose a well-equipped operating department has been included. Special rooms for dental treatment of school children and for X-ray examination are also provided. The infants' department is for the examination of small children under school age, for giving advice, and for lectures to mothers. Bathroom, dressing-room, and disinfecting-room are also provided for dealing with verminous and dirty cases. Provision is also made for giving lectures to nurses and for pathological investigation and research by the staff. All departments are in intercommunication, and the medical officer has access to all departments without leaving the building. The total cost of the buildings was £7,500, exclusive of the cost of the land, which was £2,300. The buildings were designed in the borough surveyor's office. We regret that photographs are not available for publication.

Commemorative Column, Murcia.

This column, with its vigorous statue of Fame with her wreath and trumpet, apparently commemorates Isabella, Queen of Castile, who, with Ferdinand, conquered Granada in 1492. The Moorish influence is noteworthy.

CORRESPONDENCE.

"A Neglected Aspect of the Housing Question."

To the Editors of THE ARCHITECTS' AND BUILDE
JOURNAL.

SIRS,—In your editorial comments on our arti "A Neglected Aspect of the Housing Problem," raise the very pertinent question as to whether rehabilitation of these fine old houses is at all possi and you suggest that the only way in which this obj could be secured is by State or municipal purchase.

It is clear that from this point of view the prob appears almost insuperable, and while such a dra measure might possibly be undertaken as a last, we think questionable, resource, other and simp means should be tried first.

We must point out that at the present time there no signs that public bodies or private owners h given any thought to this aspect of the hous problem, and the first step would therefore seem to to create a body of opinion favourable to the idea rehabilitation, and then to bring it to bear upon priv owners and public bodies. Without a strong driv force behind such proposals as we have in our m there can be no prospect of their being carried i effect. Given this force, it would be possible awaken and stimulate owners of such property consider the matter, and also to encourage betw individual owners and between them and munici bodies, the idea of co-operating together in lifting urban areas out of the degraded condition into wh they have fallen. We are told that at least half million new houses are needed, and that there are least one million that require rebuilding, but we h nothing of the need for the repair and adaptation old ones. The deplorable facts concerning the ur areas must be faced, for unless steps are taken tackle the problem in its relation to new hous schemes, we foresee that, after the building of the ha million of new houses, the condition of the in suburbs of London and the large provincial towns be even more terrible to contemplate than it to-day.

There is another point that should not be overloo in connection with rehabilitation in urban areas. mention that "their original dignity owed much t local and partial application of town-planning idea and a glance at the laying out of many of th districts corroborates your statement. We wo mention as examples the districts of Bloomsbury a Paddington and the position of the churches in Kin Regent, and St. Peter's Squares, and examples mi be multiplied.

Unfortunately a landlord of the late eighteenth a early nineteenth centuries who was responsible such early town-planning made his scheme with considering what the adjoining landlord might doing, so that we have the unfortunate result t streets like the Grand Junction Road in Padding district begin nowhere so to speak, lead to so unimportant by-way, and fizzle out in the m ignominious manner. Notwithstanding these limi tions, we are disposed to think that in any compreh sive town-planning scheme for London there sho be some attempt to improve, adapt, and link up th areas with the general scheme. We do not remem having seen this point considered by town-planne though Professor Adshead, in the "Town Planni Review" (we write from memory), appears to fav the view that in a new town-planning scheme too mu regard may be paid to retaining the lay-out of exist areas.

G. LL. MORRIS.
H. W. PARNACOTT

PREPARING FOR PEACE. VIII.—MAN POWER.

BY C. H. B. QUENNELL, F.R.I.B.A.

URING the present period of crisis through which the country is passing, it is only with the greatest difficulty that attention can be concen-ated on ordinary everyday affairs; yet there never as a time when it was more essential to do so.

The new Military Service Bill, now before the ouse, will in all probability, have become law before ese notes are published, and all the men who will me within its fold have an irresistible tendency the moment to straighten their backs and onder how they will be affected; and it is a very vital estion for most middle-aged men. This, of course, inevitable, and must lead to some loss of efficiency. good deal will depend on how the Government goes work in the early stages; if their methods engender nfidence all will be well, and men can get on with eir jobs, feeling that they will only be called up in se of real need.

But it is not only a question of Government; the owd must be considered, and in a democratic State e crowd is a very real consideration. Easily swayed, rging first one way and then the other, and using all s force against any individual who attempts to go ainst it, it will become frantically excited about hinese slavery, and accept servile conditions itself. loves quantity. Take the shopkeeping methods of e folk who catered for the crowd in pre-war times; e grocer who stood the best chance of selling raisins as the one who emptied a barge-load of the same into s shop window, for all the flies of the neighbourhood walk about on, and the crowd cheered and said, This man's raisins must be good, see what a lot he as!" Then they bought the raisins, and the flies, d ate them all up.

Just at the moment the crowd is in the same frame mind about the war, and the "Rake-'em-all-in" hool is convinced that it is only a question of millions men and millions of money. Reconstruction, using, factories, education, all the things which deal ith a better ordering of the life and work of the ople, can wait until after the war. Get into khaki d win the war first, and then all these things will be ssible. Shut up the museums and picture galleries, ake the parsons fight, bring the whole spiritual life the nation to an end, and then we shall smash the emy. This is no exaggeration of the frame of ind of a good many men, who would be quite pre-red themselves to man the last ditch, and leave their dies there if necessary. These dear old fire-eaters ay become a nuisance, and it is to be hoped that they ill not be sufficiently cohesive to sway like a crowd, d bring about any panic call-up of middle-aged men. is sudden mass madness, not deliberate Government tion, that is to be chiefly feared.

One of the first things that were discovered in unition making was the absolute necessity of welfare ork in the factories. The writer has a friend who is liberal-spirited manufacturer in the West Country. ong before the war he had a capable welfare super-tendent—baths, dining-hall, and all the rest of it. hen war broke out all sorts of factories became controlled" and had to go in for welfare work, and rdly any of the manufacturers knew anything about Many of them were sent to our West Country iend, where the factory was used as a sort of training hool. His verdict on some of the other manufac-rers was that their factories were a disgrace, and ost of them should have been sent to prison. This not generally known, or the "Rake-'em-all-in" School would say that it could have waited until after the war, but it is a fact that during the war, and notwithstanding it, and, indeed, arising out of it as an absolute necessity, more progress has been made in welfare work during the last year or so than in the preceding generation. This has had to be done because it recreated the spirit of the working men and women. Education, housing, and the like are the equivalent to the nation at large of welfare work to the individual, and any general stoppage, or acceptance of the principle that such work can wait, would be short-sighted, and fatal to a renaissance of the spirit. In the end it is quality, not quantity, that counts, no matter what crowds and demagogues may say; even the enemy admits this. Bernhardi in "Germany and the Next War" says, "The army which contains the greatest number of self-reliant and independent personalities must have a distinct advantage." He despises "the cheap average wisdom, which never prompted initiative," and in the "Evening Standard" of April 16 it was announced that Bernhardi is "at the head of the spearhead which Ludendorff proposed to drive across the Lys to Hazebrouck, S. Omer, and Calais."

Our "Rake-'em-all-in" school is very fond of picturing the Germans as a crowd, but it is a very moot question whether they are. The writer was told by a well-known educational authority the other day that thousands of German girls are being taught Russian and learning to type the language. The German merchant will be able to flood that country at the proper moment with all the propaganda of commerce. This is craft and cunning which, according to some of us, can wait, but it is going to make a lot of difference in paying for the war.

Then there is the bitter school, who are cross with the crowd for being a crowd. Arnold Bennett in a contribution to the "Daily News" of April 9, holds that "The situation which has led to the Bill (Man Power) was not due to any defect of man power. It was due to the army system, and that the Man Power of the nation should not be further drawn upon if we are to remain efficient. Perhaps the crowd will think so, too, one of these days.

But, as Mr. Bonar Law pointed out in the House, when discussing the Bill, democratic Government does not lend itself readily to making war, and that they had done their best; that they were determined to press the Bill through, and that if the country liked to turn them out they would cheerfully back up their successors. These people handle the crowd with consummate skill, and it was a very skilful defence, because we should not improve matters by swopping horses now. What we can do is to insist, as far as it is possible, that no individual is withdrawn from useful civil employment to waste his time in the Army. We badly want our Council of the Building Trades at the moment, where all concerned could see that their interests are protected. The only protection against the crowd is another one.

An actual experience may be given of what must be avoided. The writer, who has had some twenty-two years' experience in a London practice, frequently employed a firm of builders run by two brothers in partnership. Both were extremely capable men, thoroughly trustworthy in every way, and it was always a pleasure when they obtained a contract, because one was sure of their co-operation and a good job without any friction. One partner was just within the old military age; the other two years younger. The firm, which had a good wood-working plant, was busy making ammunition boxes and so on. About a year ago the Tribunal decided that the elder brother must join up, and, doing so, he tried for a commission in a Labour Battalion. Having been in the commissioned ranks of Labour all his life, it seemed the reasonable thing to do, and the writer backed him with testimonials as to his real ability in the control of men. He was unable to obtain the commission, as he was not a professional man, or had not been to Public School, lacked the Oxford manner, or something of that sort. Our builder friend then tried the R.N.A.S., and was asked what his trade was, and replied, "I am a builder, and employed 200 to 300 men before the war." "No," said the R.N.A.S., "building is not a trade; you are an unskilled labourer," and in this disguise our friend has served his King and country, and now he is a "skilled labourer." He took it as being all in the day's work, and was delighted to find that, though performed on dry land, he did not "form fours" to the right or left, but to port and starboard; also, when they knocked off they went "ashore." One needs a good deal of faith, or a sense of humour. Some people might say, What a waste of a good man, but not so the crowd, which thinks that if you make a man thoroughly uncomfortable and miserable then of necessity you must get the best result out of him. Take "Punch" for example. This paper has the reputation for being humorous, and you can judge the crowd by what it thinks funny. A recent issue showed a drawing of a squad working with picks, shovels, and barrows. In the middle of the picture was a spectacled individual, another "unskilled labourer," who obviously was a little out of place. In the foreground was a typical drill sergeant, to whom a young subaltern says, "Jones, do you know you have a celebrated archæologist in your squad?" and Jones says, "Really, sir! you don't say so? All I can say is, I've always found him very quiet and peaceable," or some such sort of answer. The crowd is satisfied and says, "Now we shall win; even our archæologists are working as navvies."

But this is all by the way. If it is really a question of manning the last ditch, then there is no doubt at all about men being found to get into it; and men of the new military age if necessary. They won't be much better at fighting than they would be at football, and it will be rather like playing in a parents' match at one's boys' school, where your real function is to provide the comic relief. But Lord Derby says some men of 50 will be quite useful in the trenches, and we must see that the politicians take their fair share. And this is to go on until it is a case of the real Last Man; but, as a soldier said the other day, "Who is to bring him his blinking rations?" A problem, one fears, as insoluble as that of perpetual motion.

The main concern of the building trade at the moment is to see that any of its members who are usefully employed do not suffer by reason of a panic call up. To scrap a man's business and turn him into an "unskilled labourer" is not good enough. We have borne great privations cheerfully and without murmuring. The builders have done better than the architects, because they have been able to get war construction work, but many of the former have been nearly ruined by the stoppage of all private and municipal building. Members of the profession have drifted into all sorts of odd jobs, or have been sweated in the Government offices at an average wage of £4 a week, say, with the pound at ten shillings pre-war value. The writer knows of one well-known man, an F.R.I.B.A., who is being paid £3 10s. per week by the State for work worth that amount per day, who sadly remarked that he was "going down hill fast." Meanwhile we have all had to watch the luxury trades making pots of money—now is the turn of the makers of fur coats, fancy clothing, and forced strawberr to feel the pinch. Architects have been given a r of hope by the circular which was issued to lo authorities by the President of the Local Governm Board so recently as March 18 last. This, with offer of State assistance for housing, has already h the effect of bringing schemes into operation. It work of real national importance, and must be do in any case, and now is the time to do the plannii unless one can do real work in the Army. The sa holds good of new schools to meet the requireme of a better system of education, and of all the ran of useful work which has to be done for the rena sance of our country.

[As we have said in an editorial note on page 1 the general public are hardly in a position to jud whether or not the new call-up is vitally necessa Assuming that it is, or that it would not have be made, we are bound to accept with a good grace t situation created by what is now the Military Serv Act—with a good grace morally, if not physically; the rotund figure of the average man of the advanc service ages can hardly be expected to realise at sh notice the ideal of the drill-sergeant. In spite of t influence of the U-boats and of the alleged consequ tightening of our belts, Falstaff is still distinguishal from Prince Hal. It should be possible, we imagi for the Government to get all the elderly men it nee by asking for volunteers. As we have said elsewhe there are probably thousands of men who will be o too glad to join up, but have been hitherto disqualifi by age; unless, indeed, most of these have alrea enlisted on *splendide-mendax* principles. Recen a sergeant was giving evidence. Said the Cou "Excuse me, sergeant: but you say your son is thi years old; and yet you are in khaki." "Well, I want to do my bit." "Just so," said the Court; "and it d you much honour." If, however, the State cannot enough men to volunteer, there should still be no ne to urge that the selection should be made on sou principles. But will it? That is the question, a that we take to be the main point of Mr. Quenne article. So shall the State, and the business intere on which, after all, the welfare of the State ultimat depends, be most effectively served.—EDS. A. A B.J.]

BUILDING MATERIALS INQUIRY.

THE Committee set up by the Minister Reconstruction to ascertain what steps may taken to ensure adequate supplies of all kin of building materials during the transition per immediately following the cessation of hostilities instituting a general inquiry as to the probable co sumption of materials during that period.

In co-operation with the R.I.B.A., the Natio Federation of Building Trades Employers, and ot federations and associations interested, the Commit have drawn up forms of return with regard to:—

1. New building works to be begun after the st page of hostilities;
2. Works, the erection of which was begun but stopped by the direction of the Ministry of Munitio
3. Building works proposed to be undertaken public local authorities.

These forms of return are being sent to archite and builders and to local authorities throughout country, and the Committee hope that in the intere both of the nation and of the individual they will filled in and returned, thus assisting materially work of the Committee.

Any inquiries on the subject should be addressed the Secretary, Building Materials Supply Committ 6a, Dean's Yard, Westminster, S.W.

PUBLICATIONS.

A third edition of "Nothing Gained by Overcrowding," by Mr. Raymond Unwin, F.R.I.B.A., is issued by the Garden Cities and Town-Planning Assoiation. This pamphlet is recognised as n authoritative statement of the case for he Garden City method of development, nd in the new edition Mr. Unwin has evised the text and added new illustraions. There are eight diagrams and an equal number of other illustrations, giving useful contrasts of methods of development. Of special interest is the Foreword by the Marquis of Salisbury, he President of the Association. The ddress of the Garden Cities and Town-Planning Association is 3, Gray's Inn Place, W.C.1.

"*The Journal of the London Society.*"

In the March issue of this useful ournal the opening article is a gentle protest against allowing the names of London's benefactors to be forgotten. "A few are remembered by the names upon their gifts, such as the Tate Galery, Waterlow Park, and so on; but who knows anything of all those worthies, for nstance, whose benefactions now swell he income of the City parochial charities o the sum of £90,000 a year?" It will oon be forgotten, for instance, by the general public, that London is indebted o Lord Leverhulme for the handsome gift of Stafford House. It is suggested hat the names of such benefactors hould be inscribed in golden letters on ablets in the County Hall and the Town Halls and in the county schools. The econd of a series of articles on "Arms of London Boroughs" deals with Camberwell, and brings out some interesting eatures. Thus, the crest, a wounded hind with a crosier, is emblematic of the egend of St. Giles, the patron saint of he parish (everybody knows that St. Giles's, Camberwell, is Sir Gilbert Scott's best church), who protected and succoured a wounded hind which afterwards ived with him. The lion by which Peckham is represented was probably derived rom Henry Duke of Gloucester, son of Henry I., while the chevron and cinquefoils which stand for the Dulwich portion of the borough are the arms of Edward Alleyn. Mr. David Barclay Niven enters a spirited protest against the destruction of St. Olave's, Southwark. "This," he contends, "is more than an ecclesiastical question. These buildings belong to the nation. They pertain to the soul of the people; and with the quickenng of civic conscience, which already is apparent, and with the greater love of country which the war has engendered, t should not be impossible to kindle such a spark of enthusiasm in London as would secure for ever one and all of the historic and hallowed foundations which still pertain to it."

"*The Town-Planning Review.*"

The "Town-Planning Review" for April (a double number, containing Nos. 3 and 4 of Vol. VII.) opens with a memoir, by Victor Branford, of Alasdair Geddes, who at the outbreak of the war was arranging the civic and town-planning section of the Dublin Exhibition, and who soon gained his captaincy as a field instructor of balloon observers. Promoted to major in 1916, and awarded the Military Cross, he was killed in April, 1917, by a shell-fragment. He was reputedly "the best observer in France"; and he was more than that—was in fact an Admirable Crichton, a very perfect gentle knight. He had worked as "lab.-boy" to his father, as assistant to a stonemason, as cook on a herring-boat, as labourer on a farm. "In these and other ways," as Mr. Branford puts it rather finely, "Alasdair was getting that realistic education which makes a youth at home in the elemental situations of life on this planet." He went with Dr. W. I. Bruce's expedition to Spitzbergen, and spent some months assisting in the survey of Prince Charles Foreland, where his name is commemorated in Mount Geddes and Alasdair Horn. He was heart and soul a town-planner, on sociological and humane principles rather than in the detached æsthetic way that lays stress on externals. It is an inspiring memoir. In "The Regional and Civic Commemoration of the War," Mr. Lionel B. Budden, M.A., collects and discusses all the salient data of the subject, outlines a scheme fo the framing of a Regional and Civic Planning Bill, and concludes with this pregnant passage: "The monument which this war demands is the reconstruction of the material fabric of civilised life, its reconstruction upon a survey and a plan." Mr. Patrick Abercrombie, in "The Basis of Reconstruction," marshals powerful arguments for a regional survey of national resources. "It is only," he declares, "by carrying out a Survey of the country on a Regional basis that the interdependence of every aspect of the nation's life and its relation to physical conditions can be demonstrated," and he therefore advises that "If this country is to be developed on a scientific method and comprehensively planned, it is very necessary that the Reconstruction Ministry, in whose hands the work is put, should base the Reports that deal with each section upon a coordinated study of our country. This preliminary, the Regional Survey, should be put in hand at once." Professor Adshead contributes Part II. of his extremely valuable series on "The Town-Planning of Greater London After the War," and other articles deal respectively with "Housing After the War," "The Regrouping of Rural Population," "A French Garden Hamlet," "The Town-Planning of Scotland," a scheme for the future of Wigan, "Electric Power Supply in Great Britain," and the progress of the Town-Planning Act, with special reference to its application in several northern towns.

Prince Lichnowsky's Disclosures.

Messrs. W. H. Smith and Son send an advance copy of the pamphlet containing Prince Lichnowsky's disclosures, of which they have been commissioned in the national interests to distribute at least three million copies. This pamphlet is a summary of Lichnowsky's memoirs, prepared by Mr. C. A. McCurdy, M.P., and issued by the National War Aims Committee. It reveals in a very striking manner the true aims of Germany, as disclosed by her Ambassador. In the larger towns, particularly the industrial towns, special campaigns are being organised, and arrangements, too, are being made so as to ensure copies of the pamphlet reaching the remotest villages. All—especially leaders of opinion and other influential persons—should co-operate in giving this pamphlet the widest possible publicity. Employers should be asked to distribute copies amongst their staffs and workpeople. For this purpose a supply would be sent them carriage paid. Copies of this pamphlet are being sent to every public library in Great Britain.

COMING EVENTS.

WEDNESDAY, APRIL 24.

Royal Scottish Academy, Edinburgh.—Private view of Ninety-second Annual Exhibition in the galleries of the Academy, from 10 a.m. to 6 p.m.

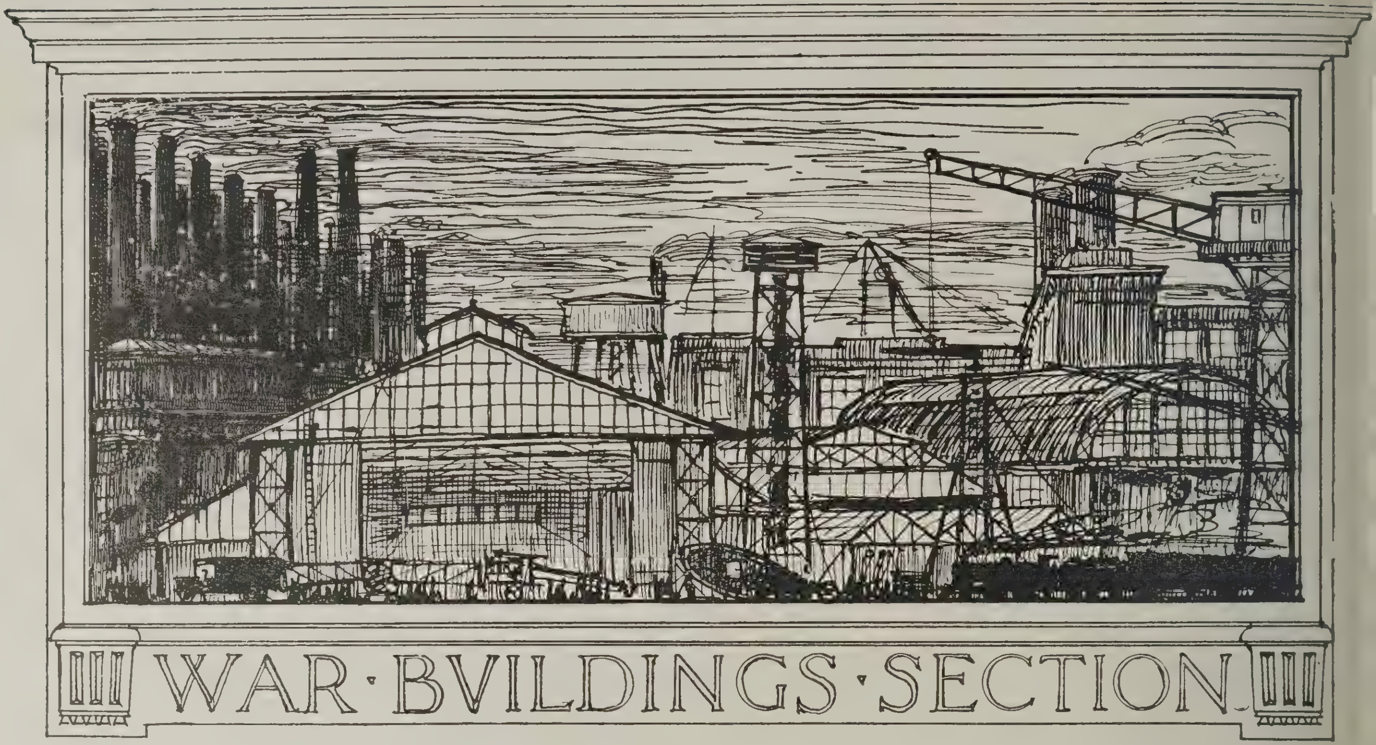
THURSDAY, APRIL 25.

The Goupil Gallery.—Private view of paintings and drawings by William Rothenstein (one of the Official British artists), illustrating the scene of the recent offensive. Exhibition to be opened by the Right Hon. H. A. L. Fisher, M.P., Minister of Education, at 3 p.m.

The Concrete Institute.—Mr. J. H. Deane, M.Inst.C.E., etc., on "The Charterhouse Street Cold Stores of the Port of London Authority," at 5.30 p.m.

AN EXHIBITION OF WALCOT DRAWINGS AND ETCHINGS.

Architects will find much to interest them in the exhibition of paintings, watercolours, and etchings by Mr. William Walcot at the galleries of Messrs. James Connell and Sons, in Bond Street. Mr. Walcot is perhaps our most pervasive architectural draughtsman. It is rare that the Academy does not contain half a dozen or more of his drawings; and his influence may almost invariably be detected in no small proportion of the other perspectives that find a place in the Architectural Room. Mr. Walcot may be said to have achieved (as did the late Phil May, in another form of pictorial art) the elimination of the non-essential. He secures his effects mostly with a wonderful economy of effort. Many of his drawings, on close examination, are found to consist of large spaces of plain paper surface, edged here and there with a light tone and relieved in vital places by vivid splashes of colour. Yet their appeal is instantaneous. Mr. Walcot never overloads his drawings with detail, though it is always deftly suggested. "The Hecatompedon" (No. 3) and "The House of a Patrician" (Nos. 8 and 10) are excellent examples of this kind. Occasionally, however, the artist lays on his colour in lavish quantities (as is "Russia's Salvation," No. 14, and "The Panathenæa," No. 17—the latter full of pagan glitter and magnificence), but never without getting an effect that could be otherwise secured. Mr. Walcot is as much at home with modern as with ancient subjects. "The Entente Cordiale: Corner of the Madeleine, Paris" (No. 4). and "The Arc de Triomphe, Paris" (No. 18)—the former Paris *en fête* with Venetian masts and festoons. and the latter a military muster of the Allies beneath the towering mass of the great arch—each in its way is full of the modern spirit. The etchings on view include some of Mr. Walcot's finest achievements. There are the great Roman subjects: "Caracalla," "A Tragedy by Sophocles performed before the Emperor Hadrian," "Antony in Egypt," "The Forum," "A Court of Justice," and others—all familiar, but all worth seeing time and time again. A large number of small etchings of wonderfully delicate technique are also on view. Despite the delicacy, however, there is none of the weakness into which, with too many artists, that fine quality is apt to degenerate. Mr. Walcot is never vague and indeterminate, but always firm, vigorous and assured, with manifest mastery of his medium, whether he is wielding brush or burin.



AN AMERICAN WAR HOSPITAL IN FRANCE.

IN the spring of 1916 France had six hundred thousand beds and England five hundred and fifty thousand beds in field, base, private, and public hospitals for the Army in France alone. These statistics go to show that there are 25 per cent. of casualties and sickness needing hospital care, so it is easy to understand that prodigious preparations in this respect have to be made by the American Army. Hospital unit after hospital unit is being sent over (savs Mr. Edward F. Stevens in the "Architectural Record"), the best surgeons, medical specialists, and nurses of the land are offering their services and are going to the front. The Government must provide proper housing, wards, operating rooms, laboratories, and equipment for accomplishing the necessary work; much material must be shipped across, not only the portable equipment, but many of the buildings themselves, so that upon arrival the erection can be accomplished with the minimum amount of labour.

The planning of these hospital buildings was placed in the hands of Mr. Charles Butler and the writer by the General Engineer Depôt, United States Army, of which Lieutenant-Colonel W. H. Rose is the head, and the plans have been approved by the office of the Surgeon-General, United States Army.

Type of Construction.

These units consist of eighty-seven buildings each, and comprise all the essential departments of an up-to-date hospital, all of "demountable" portable construction. The type of construction used is similar to that employed by Mr. Butler for the Rockefeller Demonstration Hospital in New York.

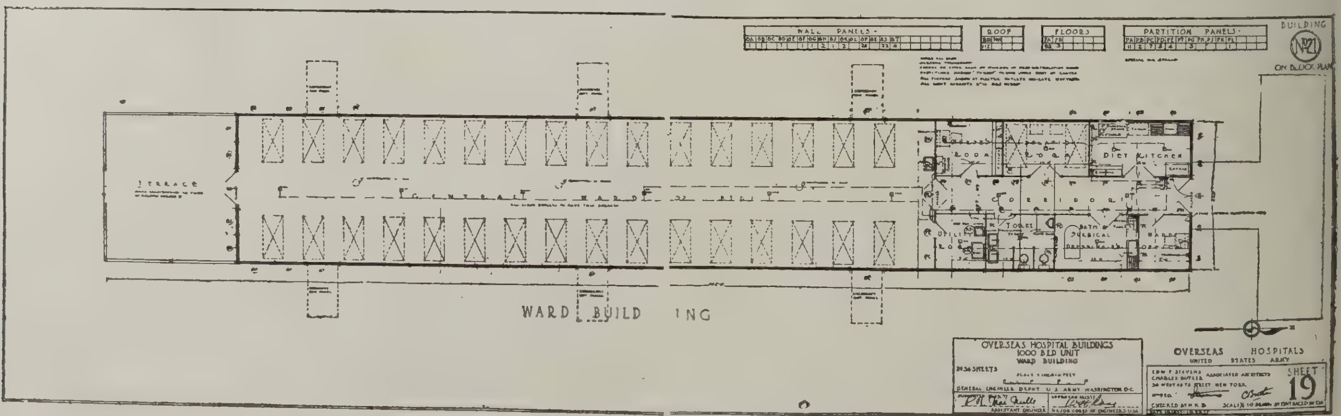
Plan and Lay-out.

The block plan shows the ideal grouping of buildings, but the actual lay-out on the ground must depend on the available site, on the contour of the land, on the local surroundings, etc. The orientation of certain buildings must always be considered in every hospital group; thus, to obtain the ideal lighting of the ward buildings the wards should run north-south, and the ideal condition fo operating buildings is to have the operating rooms face the north, and the ain should always be to approximate this.

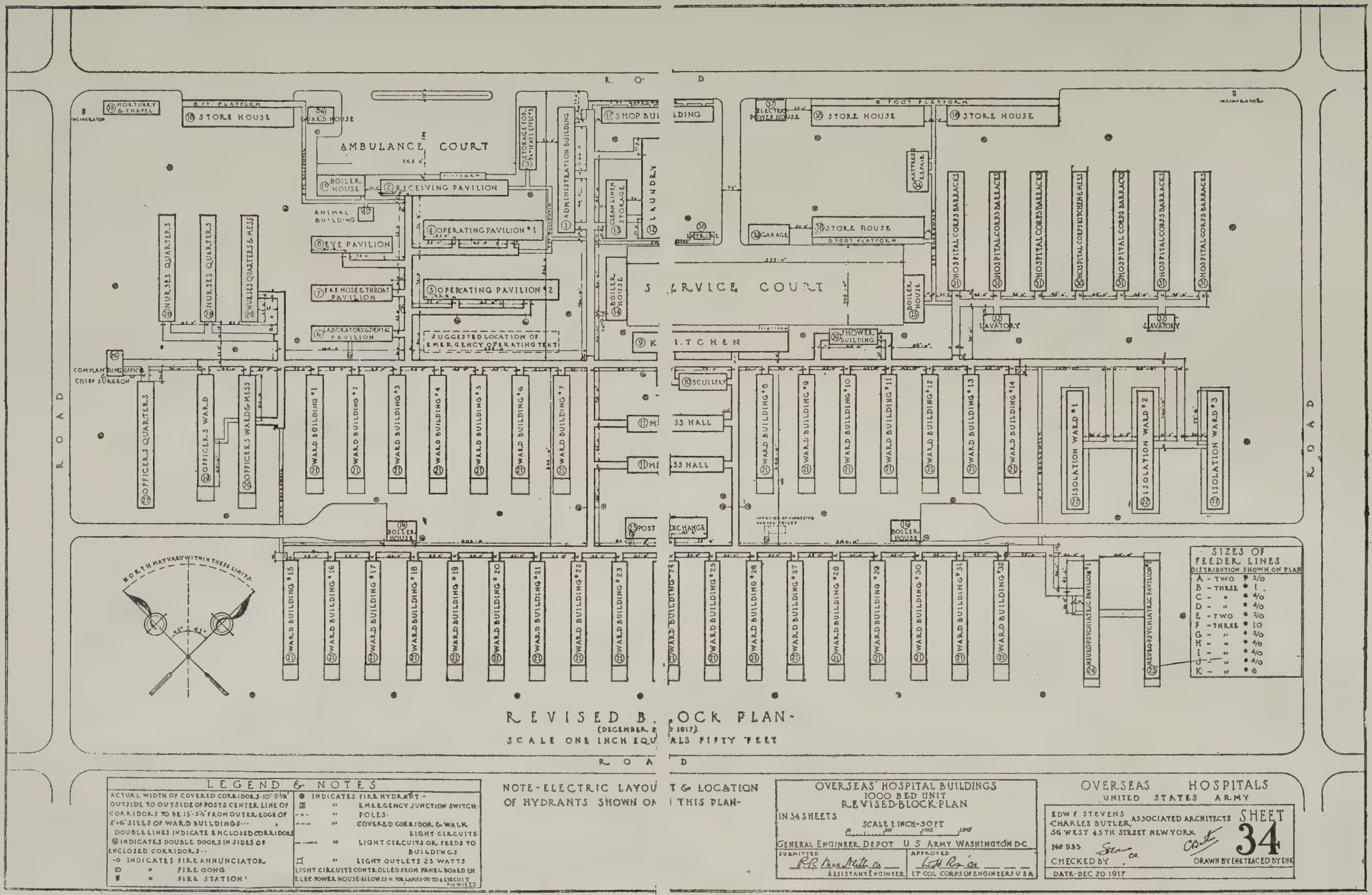
In the war hospital, especially in on near the front, greater facilities must b made for the reception of the patients thus, the receiving building will accommodate a large number of stretchers a one time and will allow for proper segregation and classification of the patients the taking of the histories, etc. Th bathing room adjoining is provided wit high slab tubs. In this room the patient' clothes and effects are removed, which after washing and fumigating, are deposited in the adjoining patients' effect building, No. 3 on general plan.

As all buildings are connected by enclosed corridors, the patient can be taken by stretcher or otherwise, to the operatin building or to the ward, according to hi condition.

The operating buildings, two in number for the general operating service, consis of thoroughly equipped suites of room with every convenience of a moder



AN AMERICAN WAR HOSPITAL IN FRANCE: PLAN OF WARD BUILDING.


ROAD
MORTUARY & CHAPEL
INCINERATOR
STORE HOUSE
AMBULANCE COURT
BOILER HOUSE
RECEIVING PAVILION
STORAGE FOR PATIENTS EFFECTS
ADMINISTRATION BUILDING
ANIMAL BUILDING
OPERATING PAVILION #1
OPERATING PAVILION #2
EYE PAVILION
EAR NOSE & THROAT PAVILION
LABORATORY & DENTAL PAVILION
SUGGESTED LOCATION OF EMERGENCY OPERATING TENT
NURSES QUARTERS
NURSES QUARTERS & MESS
COMMANDING OFFICER CHIEF SURGEON
OFFICERS QUARTERS
OFFICERS WARD
OFFICERS WARD & MESS
CLEAN LINEN STORAGE
LAUNDRY
SHOP BUILDING
SERVICE COURT
KITCHEN
SCULLERY
MESS HALL
POST
EXCHANGE
ELECTRIC POWER HOUSE
GARAGE
MATTRESS REPAIR
SHOWER BUILDING
HOSPITAL CORPS BARRACKS
HOSPITAL CORPS KITCHEN & MESS
LAVATORY
ISOLATION WARD #1
ISOLATION WARD #2
ISOLATION WARD #3
WARD BUILDING #1 – #32
NEURO-PSYCHIATRIC PAVILION #1
NEURO-PSYCHIATRIC PAVILION #2
NORTH MAY VARY WITHIN THESE LIMITS
SIZES OF FEEDER LINES
DISTRIBUTION SHOWN ON PLAN
A - TWO 2/0
B - THREE 1
C - " 4/0
D - " 4/0
E - TWO 2/0
F - THREE 10
G - " 2/0
H - " 4/0
I - " 4/0
J - " 4/0
K - " 6
REVISED BLOCK PLAN
(DECEMBER 2? 1917)
SCALE ONE INCH EQUALS FIFTY FEET
LEGEND & NOTES
ACTUAL WIDTH OF COVERED CORRIDORS 10'-9⅛" OUTSIDE TO OUTSIDE OF POSTS CENTER LINE OF CORRIDORS TO BE 15'-5½" FROM OUTER EDGE OF 2'-6" SILLS OF WARD BUILDINGS
DOUBLE LINES INDICATE ENCLOSED CORRIDORS
Ⓐ INDICATES DOUBLE DOORS IN SIDES OF ENCLOSED CORRIDORS
-○ INDICATES FIRE ANNUNCIATOR
" FIRE GONG
" FIRE STATION
● INDICATES FIRE HYDRANT
" EMERGENCY JUNCTION SWITCH
" POLES
" COVERED CORRIDOR & WALK LIGHT CIRCUITS
" LIGHT CIRCUITS OR FEEDS TO BUILDINGS
" LIGHT OUTLETS 25 WATTS
LIGHT CIRCUITS CONTROLLED FROM PANEL BOARD IN ELEC. POWER HOUSE · ALLOW 25 W FOR LAMPS · 20 TO A CIRCUIT · 2 WIRES
NOTE - ELECTRIC LAYOUT & LOCATION OF HYDRANTS SHOWN ON THIS PLAN -
OVERSEAS' HOSPITAL BUILDINGS
1000 BED UNIT
REVISED BLOCK PLAN
IN 34 SHEETS
SCALE 1 INCH = 50 FT
0 50' 100' 150'
GENERAL ENGINEER DEPOT U S ARMY WASHINGTON D.C.
SUBMITTED
R.R. MacMill..
ASSISTANT ENGINEER
APPROVED
LT COL CORPS OF ENGINEERS U S A
OVERSEAS HOSPITALS
UNITED STATES ARMY
EDW F STEVENS
CHARLES BUTLER
ASSOCIATED ARCHITECTS
56 WEST 45TH STREET NEW YORK
No 933
CHECKED BY
C. Butler
SHEET 34
DRAWN BY EHK TRACED BY EHK
DATE · DEC 20 1917

AN AMERICAN WAR HOSPITAL IN FRANCE: BLOCK PLAN.

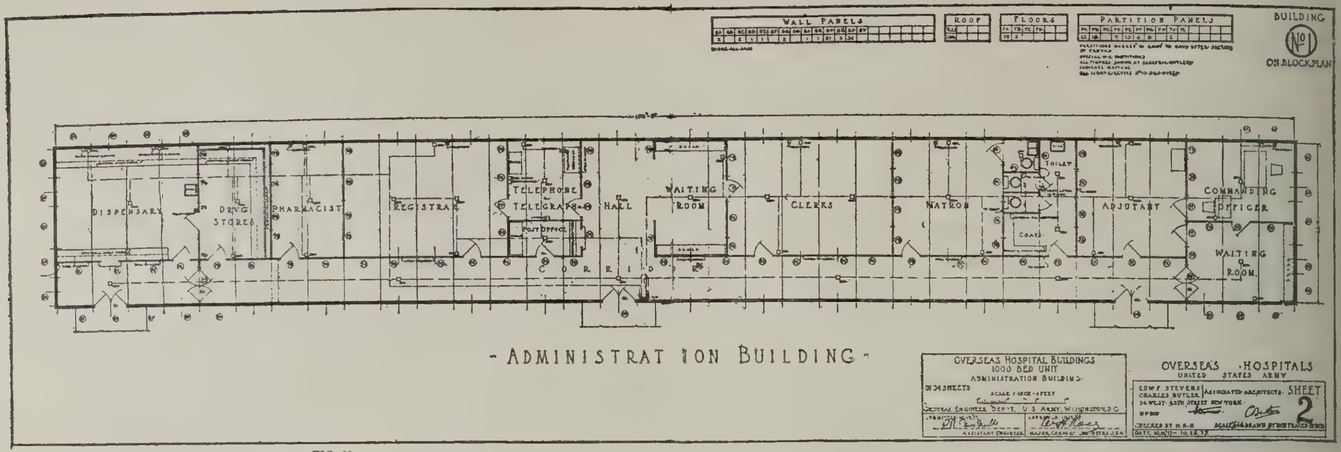


FIG. 12.

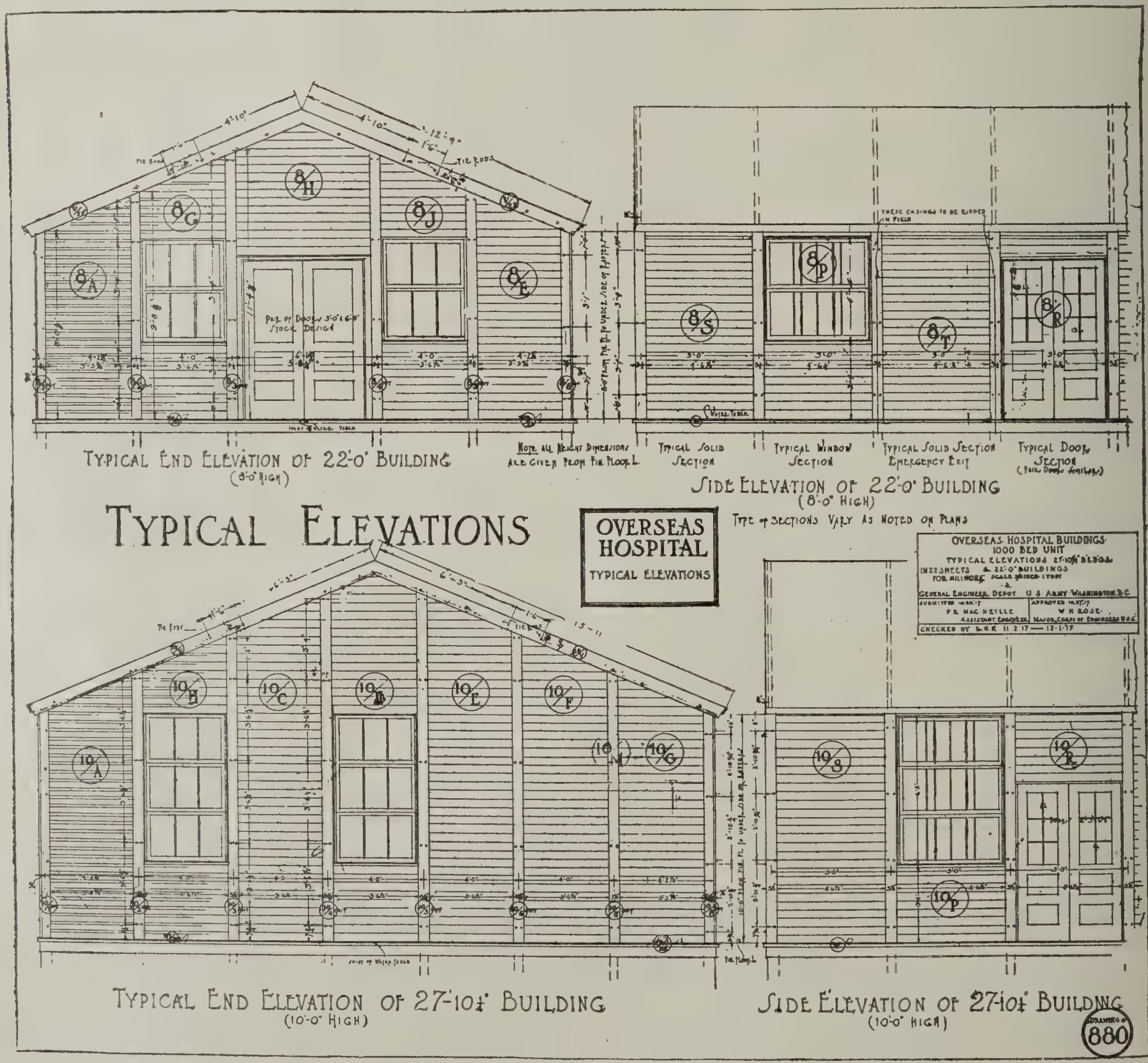
PLAN OF ADMINISTRATION BUILDING.

operating unit in a surgical hospital. The rectangular shaped building, made necessary by the type of construction adopted, does not interfere with the efficiency of the plan except, perhaps, that there is a superabundance of corridor. The operating rooms are provided with abundant light by means both of windows and skylights. Between the two main operating rooms is the sterilising room, and sterile water is brought to the scrub-up sinks in each operating room. The scrub-up sinks, while they are simple enamelled sinks, are provided with the most approved elbow-action scrub-up devices. Steam sterlisers and blanket warmers, a complete X-ray suite, a plaster room and general utility are all provided.

For the units placed near the front, the two buildings, Nos. 4 and 5, would be needed, providing for ten operating tables.

The walls of the operating rooms are rendered smooth by an additional surface of enamelled canvas, while the floors are cement.

A separate operating and treatment


TYPICAL END ELEVATION OF 22'-0" BUILDING
(8'-0" HIGH)
PAIR OF DOORS 3'-0"×6'-8" STOCK DESIGN
NOTE ALL HEIGHT DIMENSIONS ARE GIVEN FROM FIN. FLOOR L.
TYPICAL SOLID SECTION
TYPICAL WINDOW SECTION
TYPICAL SOLID SECTION EMERGENCY EXIT
TYPICAL DOOR SECTION
SIDE ELEVATION OF 22'-0" BUILDING
(8'-0" HIGH)
TYPE OF SECTIONS VARY AS NOTED ON PLANS
TYPICAL ELEVATIONS
OVERSEAS HOSPITAL
TYPICAL ELEVATIONS
OVERSEAS HOSPITAL BUILDINGS
1000 BED UNIT
GENERAL ENGINEER DEPOT U.S. ARMY WASHINGTON D.C.
TYPICAL END ELEVATION OF 27'-10½" BUILDING
(10'-0" HIGH)
SIDE ELEVATION OF 27'-10½" BUILDING
(10'-0" HIGH)
880

AN AMERICAN WAR HOSPITAL IN FRANCE: TYPICAL ELEVATIONS.

uilding is provided for the ear, nose, and roat, another for the eye, and another r the dental and laboratory work.

The ward building, of which there are irty-two in each unit, is much the same s that adopted by the French and English rmies. It consists of the ward of thirty-wo beds and of a twenty-foot airing balony at the south end. The ward itself is 2 ft. wide, 102 ft. long, and has twenty-ur windows. These windows, occupyg about 30 per cent. of the wall surface nd opening from the top, afford the aximum of light and air.

In each ward there are six emergency xits. The side wall panels, hinged at ottom and opening out form a ramp, own which the beds can be run in case of re or other cause for quick exit. The alls, doors, and roofs being double, these ard buildings are comfortable in both inter and summer.

The utilities consist of a linen room, a urses' office, a toilet room, a surgical ressing-room, a small serving kitchen, a nall office for the military attendant, and n isolation room for a delirious or moriund patient.

Isolation Buildings.

In each group there are three isolation uildings for the care of communicable or ontagious diseases. These provide for venty-six patients each, and are planned n the so-called "Pasteur," or single-room ystem. The ten single or isolation rooms re entered from the outside. Each room self-contained, having a water-closet and sink with special elbow faucets, so that will not be necessary for a patient to ave the room until he is convalescent. he service of food and attendance to the tient are from the inside corridor. Prosion is made for linen, serving kitchen, ility room, and discharge bath. The ischarge bath is approached from the tside as well as from the inside. For onvenience in bathing, a portable slab" bath, which can be wheeled into ny room, is provided, with water served om the sink and drained into the water-oset bowl. The attendant can readily ive the bath, clean the slab, and it will en be ready for the next patient.

Special Wards.

There are two convalescent wards in ach building.

For the care of the psychopathic and eurologic patient, two buildings, called e Neuro-Psychiatric Wards, are proded. The more violent cases are conned in the portion set apart for them, onsisting of isolation rooms, a day room, nd a room with continuous flow-baths. his portion of the building is protected y wire guards to prevent the escape of atients. The milder cases of insanity are ared for in a different section of the uilding.

The building for the strictly neurological ases provides special bath and medical eatment rooms, as well as wards, day oom and rest rooms.

For sick officers, two officers' ward uildings are provided—one with wards nd semi-private room, and with private ooms and mess.

For the convalescent patients, about 50 er cent. of whom are ambulatory or alking patients, dining rooms or mess alls are planned; also, a central bath ouse. For recreation the assembly hall post exchange is provided.

So much for the buildings for the atients.

Administration and Mechanical Buildings.

The administration and mechanical buildings occupy a most important part in each group.

In the administration building are, of course, the offices for administration, and they are much the same as in a civilian hospital. Headquarters for the commanding officer, secretaries, matron, and pharmacist are provided, as well as postal and telegraph offices.

The commanding officer and chief surgeon are given a small house; the other officers are in a separate building. The female nurses have separate buildings, with single rooms for each nurse. Hospital barracks house the enlisted men.

The kitchen building is worked out with great care, and contains the bakery, the bread room, the main kitchen and the scullery; also a complete ice-plant for cooling refrigerators in this building and for the making of ice for the hospital. High-pressure steam is used largely for cooking, and this is obtained from a nearby boiler plant.

The dish-washing is accomplished in a small building situated between the kitchen and the mess halls: this building serving as well for the housing of the food carts.

The process of serving food is simple. The orderly starting with his food cart first obtains his quota of hot dishes, then goes through the closed corridors to the kitchen, where he picks up the bread required; next to the hot table to get the hot food, then for the dessert, and then through a closed corridor to the ward, where the food cart is used as a serving table, and the patient is reasonably sure of getting hot food.

The laundry building has been planned in reference to efficient work. The soiled clothes are entirely at one end, where, with modern machinery, they are sterilised, washed, dried, ironed, and folded, and then taken to a general storage room for distribution.

General Construction.

The construction of these buildings is simple—all of one storey, built up of standard five-foot units. Notwithstanding that they will be of portable construction, with double walls, floors, and roofs, built in shops, transported to the war section and erected, they will be hygienic, easily cleaned, comfortable in winter and summer, and painted both inside and outside. The elevations and sections show the general type. Connections to these buildings are through enclosed corridors.

The heating system is so laid out with several small heating plants that no large pipes will be required; in fact, a 3-in. pipe is the largest used outside the boiler houses.

COMPETITION.

Welsh Housing and Development Association Cottage Design Competition.

The Council of the Society of Architects are in communication with the promoters in regard to Clauses 5 and 21 of the conditions of the competition, which, in the opinion of the Council, are not in accordance with the competition regulations adopted by the Society. Members of the Society are requested not to take any part in the competition without first ascertaining from the Society that the conditions have been amended to meet the views of the Council.

ADOPTION ABROAD OF BRITISH ENGINEERING STANDARDS.

H.M. Government have recently been in correspondence with the British Engineering Standards Committee on the subject of the extension of the committee's activities in foreign countries, and of certain new developments now in contemplation, which comprise (*a*) the translation into French, Spanish, Italian, and Russian of the British standard specifications applicable to the foreign trade of the United Kingdom; (*b*) the establishment of Local Standards Committees in several British overseas possessions and foreign countries, to be in direct communication with the committee in London, and to act in an advisory capacity to it; (*c*) the reduction to one shilling, or, in the case of translations, its equivalent in foreign moneys, of the price at which the British standard specifications shall be sold to the public. Towards the above objects H.M. Government have assisted the committee by a grant, in addition to which a considerable sum has been subscribed by the engineering industry itself.

Considerable progress is being made in regard to the translations, says the "Board of Trade Journal," and practically all of the British standard specifications and reports will be ready shortly for issue at a uniform price of one shilling. It is hoped that this will lead to the extensive dissemination of British standards amongst chief engineers, managers, designers, draughtsmen, foremen, and, in fact, all those interested in the engineering and allied industries. By reason of its centralising organisation the committee have been able through standardisation to give the greatest effect to co-ordination and collective effort, which is now generally recognised as of paramount importance to economic production. The work has gone far to secure interchangeability of parts, to cheapen manufacture by elimination of waste entailed in producing a multiplicity of designs for one and the same purpose, as well as to effect improvement in workmanship and design, and by concentration of effort to expedite delivery and reduce maintenance charges. A vast saving to the country in the cost of machinery and finished materials has thus been effected, and this has undoubtedly had a marked effect in enabling the engineering industry in the United Kingdom to hold its own in general competition.

The distribution abroad of the British standard specifications and reports, if successful, must inevitably lead to a large extension of British trade, and the committee have applied to H.M. Government to assist in the work of the Local Standards Committees which it is proposed to set up in various foreign countries, notably in Argentina, Brazil, Chile, China, Peru, Portugal, Spain, and Uruguay. It is desired that each local committee should have a president as well as a chairman, the former being the British Consular officer, or other Government representative, with some well-known British engineer resident in the country filling the office of chairman.

The Foreign Office have agreed that the services of H.M. Consular officers in certain specified localities shall be placed at the disposal of the Engineering Standards Committee to act in an honorary capacity as presidents of the local committees, in order to supervise in a general way the work it is desired to carry on, and these officers have been asked to take steps with a view to giving effect to the scheme.

COST OF BUILDING AFTER THE WAR.

BY ERNEST H. SELBY, Quantity Surveyor.

(Continued from page xi., *April* 17.)

In the foregoing estimate, I am, of course, assuming that normal conditions obtain, and that the Army and Navy have been reduced to reasonable proportions, and that the work of re-housing in the war-devastated areas has been well started, so that the people of those areas are able to grapple with the remaining problems themselves.

How long this will take, and how much assistance we shall be called upon to render, entirely depends upon how much longer the war lasts, and how much more damage is caused, and what further districts become involved.

Taking a reasonable view, as far as any view can be called reasonable, twelve to eighteen months ought to be sufficient in which to render the necessary assistance to our Allies, before we can turn our attention entirely to our own wants, although after about nine to twelve months, as already stated, a large number of men ought to be available for building work at home.

The question of the price of all materials will largely depend upon the amount of materials we shall be called upon to supply to other countries, as during the time the competition between the home and foreign markets exists there will not be very much likelihood of prices returning to the normal, nor is it at all probable that we shall be able to obtain many building materials from abroad for some time.

The arrears of building operations and repairs in this country will be so large that for at least another ten years after we have returned to normal conditions there will be no prospect of reduction in cost through supply exceeding demand.

Housing schemes for the working classes, and above all convalescent and permanent homes for wounded and disabled soldiers and sailors, will have to be taken in hand at once, and ought to provide plenty of work for those now engaged on solely war buildings as and when they are discharged, so that the men are not out of employment whether the war is finished or not.

The control by Government of certain industries and trades after this period ought to be ended, as by that time they ought not to be the largest buyers in the market.

I have not considered the question of strikes in the building trades, as I hope after all we have been through some better method will be found of solving labour problems than the suicidal methods adopted during the last fifty or sixty years whereby a large portion of trade has been lost to this country.

One matter remains to be considered—the placing of contracts after the war. For the first few years great difficulties will be experienced in estimating owing to the unknown cost of labour and the varying prices of materials, and the fairest and most economical method will be for work to be placed at cost with a fixed profit, and the necessary precautions taken to check same so as to arrange for finance. In this way it will be possible to compile prices that will meet the new conditions and so enable contractors to submit close and firm estimates.

As soon as building operations can be accurately tendered for and placed in the hands of contractors so soon will the cost of buildings be brought down, as from their experience they should be able to carry out the work in the most expeditious and economical manner. The incentive of turnover and profit will always bring out the greatest energy and initiative of the individual, and if this great war produces a better and more human element between employers and employees, resulting in unremitting application, hard work, and enterprise all round, enabling us to hold our own and resume our old position of supremacy during the difficult period of reconstruction after the war, it will not have been fought in vain.

NEWS ITEMS.

Building Trade and the War Bonus.

Application has been made for the extension of the recent 12½ per cent. award to the building trades to all operatives preparing work for Government buildings.

Peace and Norquoy, Ltd.

It is officially announced that the debentures issued by this company on November 17, 1908, for securing the sum of £5,000 have been wholly paid and satisfied, and a memorandum to that effect was on April 11, 1918, filed with the Registrar of Joint Stock Companies. There are now no mortgages or debentures upon or affecting the property of the company.

The Edith Cavell Home.

Queen Alexandra, the president, will, it is hoped, open the Edith Cavell Home, now on the point of completion, within the London Hospital grounds, early next month. It will be remembered that this home was to have been called the Alexandra Home, but after the murder of Edith Cavell, who was trained at the London Hospital, Queen Alexandra expressed a desire to have the name changed to the Edith Cavell Home. Sir George Frampton's bust of the martyred English nurse, which is to stand in the nurses' sitting-room of the home, will be unveiled on the same day.

Housing in Ireland.

In the House of Commons on April 11, Mr. Duke, Chief Secretary for Ireland, replying to Mr. Field, said: It has been and is intended that Ireland shall participate in any measures submitted to Parliament for the improvement of housing conditions. It will appear also from the report of the Irish Convention that His Majesty's Government is ready to recommend to Parliament the making of special provisions for the needs of urban localities in Ireland in connection with the measure for granting self-government to Ireland which is about to be presented to Parliament. The necessity of simplifying and cheapening procedure in connection with this subject is recognised by the Government, and will be dealt with as soon as may become practicable.

Steel Manufacture in South Africa.

Much attention has been given lately to the encouragement and development of manufacturing industries in the Union of South Africa, and mining is no longer regarded as the alpha and omega of the productive activities of the country. The Vereeniging Steel Works, situated about forty miles from Johannesburg, though at present a relatively small undertaking, is regarded, according to information received by the British Empire Producers' Organisation, as marking the beginning of a new era in South Africa's industrial life. So far the raw material used is waste and scrap iron and steel, for th purchase of which the works have a co tract with the railways. This contract useful to both parties, as through it th railways get rid of large quantities of us less stuff. It is expected that the ste works will rapidly expand and will be in position in the near future to treat the o from the Pretoria iron fields.

Woolwich Hospital Scheme.

Lord Burnham, in opening the secon day's proceedings at the great bazaar Woolwich Town Hall in aid of the fun for erecting a general hospital as memorial to local men who have fallen the war, said it was a scandal that ho pital accommodation should be so lackin not only in Woolwich but in the oute fringe of London as a whole. This lac was recognised by King Edward's Ho pital Fund, but little had been done, wit the exception of the transfer of one grea hospital to South London, and nothing all had been done for South-East Londo He could assure them that in his capaci as a member of the Council of that fun he would see that the case of Woolwic received sympathetic consideration. Befo leaving Lord Burnham presented £1 towards the bazaar fund.

OBITUARY.

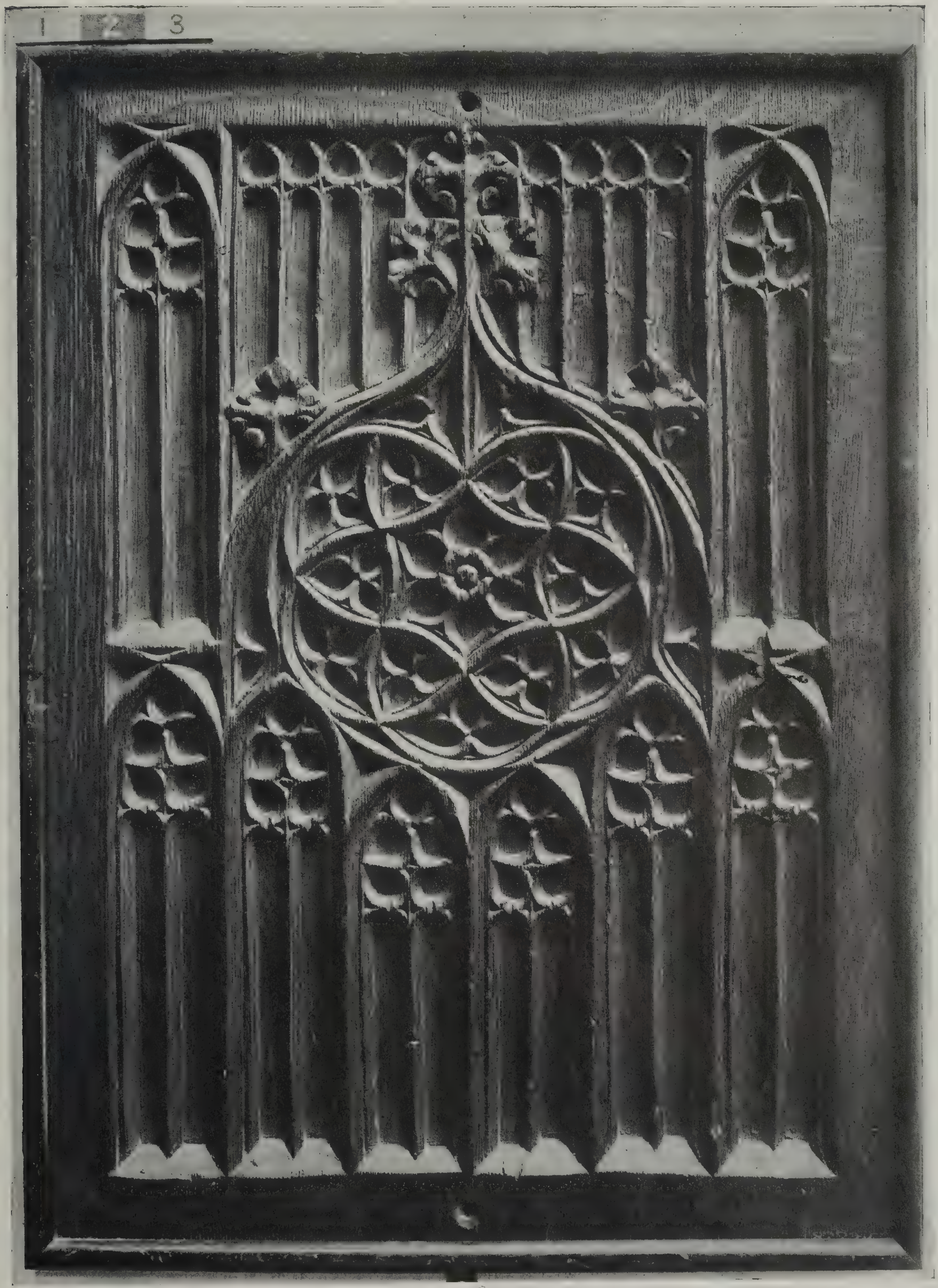
Second Lieutenant E. M. P. Fisher.

Second Lieutenant Edmund Monta Prinsep Fisher was the third son of t late Mr. and Mrs. Herbert Fisher and t brother of Mr. H. A. L. Fisher, Minist of Education, and of Charles Fishe sometime Censor of Christ Churc Oxford, who went down with H.M.S. I vincible in the Battle of Jutland. Lie tenant Fisher, who was born in 1872, a educated at Haileybury, was an archite by profession, trained in the office of M Basil Champneys. In 1015, being we over military age and ineligible for acti service, he went out as orderly to t Hôpital Temporaire, Arc en Barwi organised bv Miss Bromley Martin f French soldiers, and was there throu the summer, mainly helping in X-r work. Later he succeeded in bei accepted for active service, and havi completed his training for the R.F. crossed to France on June 5, 1917. saw hard fighting in the Ypres salient a again in the battle of Cambrai. January 17 he was struck down with a pendicitis, and died on Easter Sunda He leaves a widow, the daughter of M Douglas Freshfield, and seven daughter A correspondent of "The Times" write "Edmund Fisher was an architect, litt known to the general public, but appr ciated in the circle of those who follo the development of our English arts a crafts for a distinctive and unmistakab gift which stamped itself on everythi which came from his mint. He had sure and sober taste and a singular tale for making his houses appear to grow o of the ground as natural parts of the su rounding scenery. For the most part h work lay in the sphere of domestic arch tecture, but the beautiful hall of Some ville College, Oxford, and the Protesta Church at Rome are examples of felici in other directions. Architecture, ho ever, was but one of his artistic interes (for he was an admirable judge of pain ing and porcelain) and but a small pa of a life largely and most happily spe in country pursuits. He was a good rid to hounds and at one time master of pack of beagles."

t to "The Architects' and Builders' Journal," Wednesday, April 24, 1918.

arch

MAY 23 1918



DETAILS OF CRAFTSMANSHIP (SERIES III.). XXIV.—AN OAK PANEL (ENGLISH: LATE FIFTEENTH-CENTURY PERIOD).

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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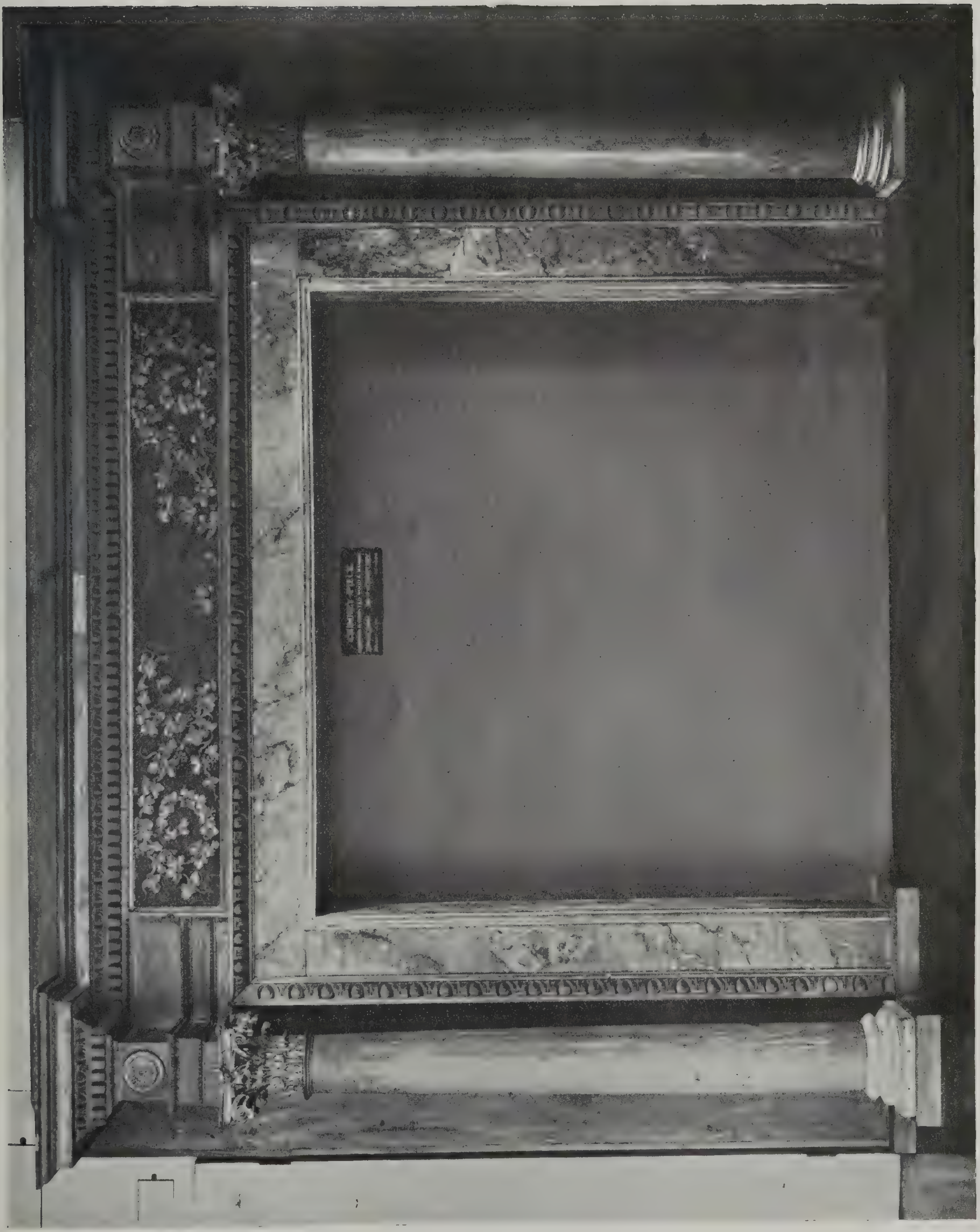

DETAILS OF CRAFTSMANSHIP (SERIES III.). XXV.—CARVED WOOD CHIMNEYPIECE (ENGLISH : EIGHTEENTH-CENTURY PERIOD).

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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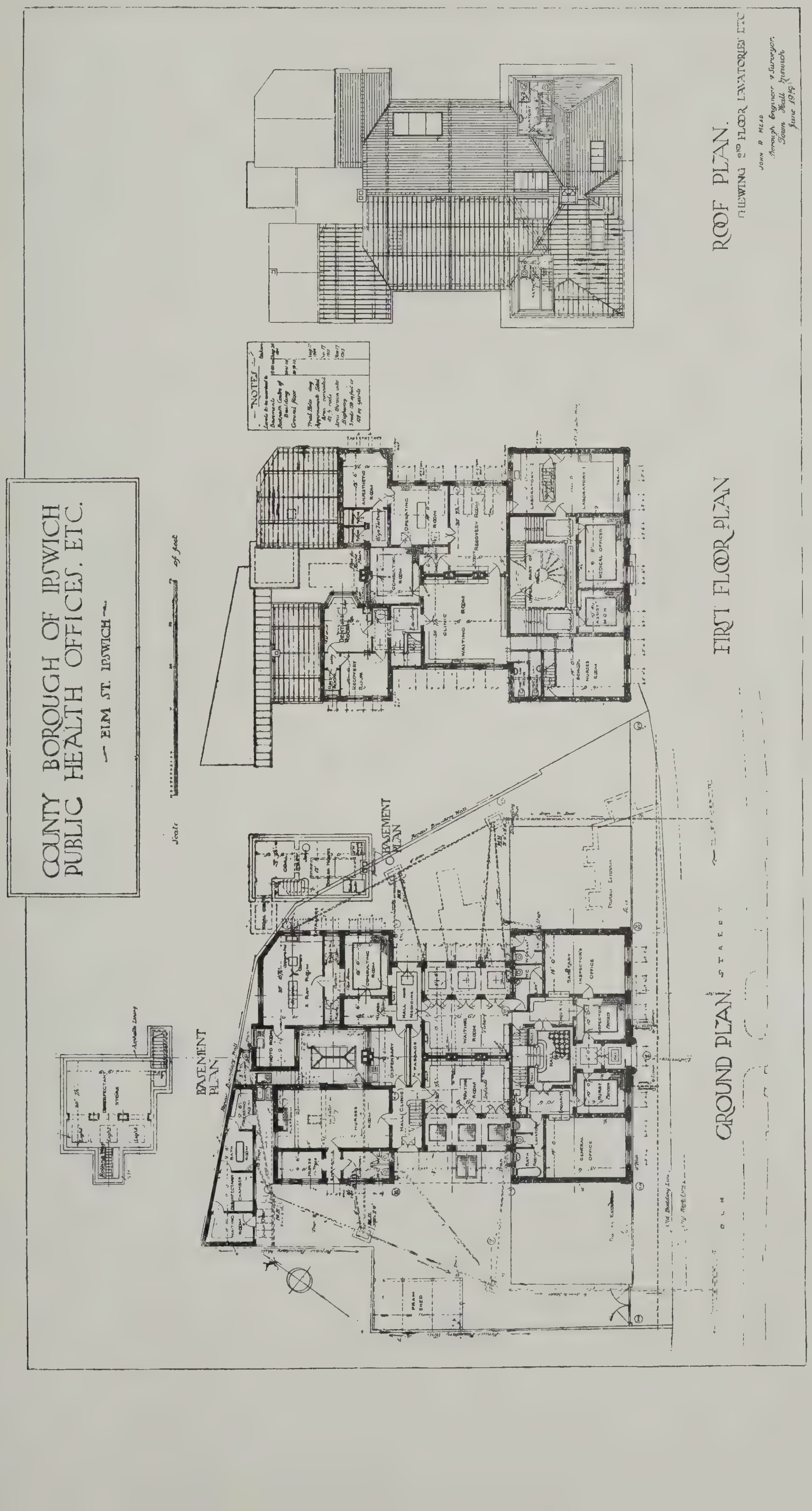

ARCHITECTS' WORKING DRAWINGS (SERIES III.). II.—PUBLIC HEALTH OFFICES, ETC., ELM STREET IPSWICH: PLANS.

JOHN R. MEAD (BOROUGH ENGINEER AND SURVEYOR), ARCHITECT.

(See also double-page Supplement.)

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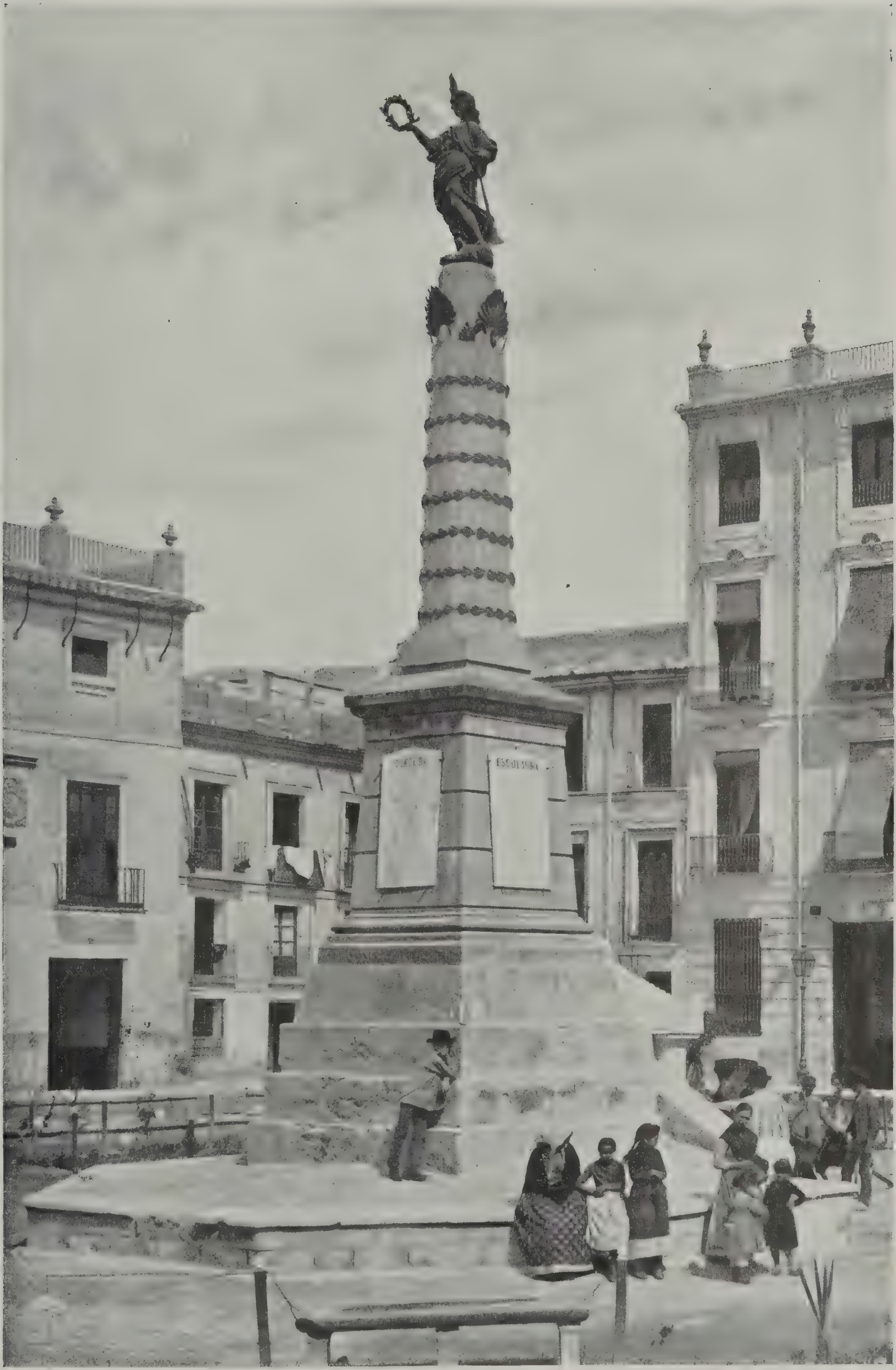

COMMEMORATIVE COLUMNS AND OBELISKS. XII.—MONUMENT IN THE PLAZA SANTA ISABELLA, MERCIA, ANDALUSIA, SPAIN.

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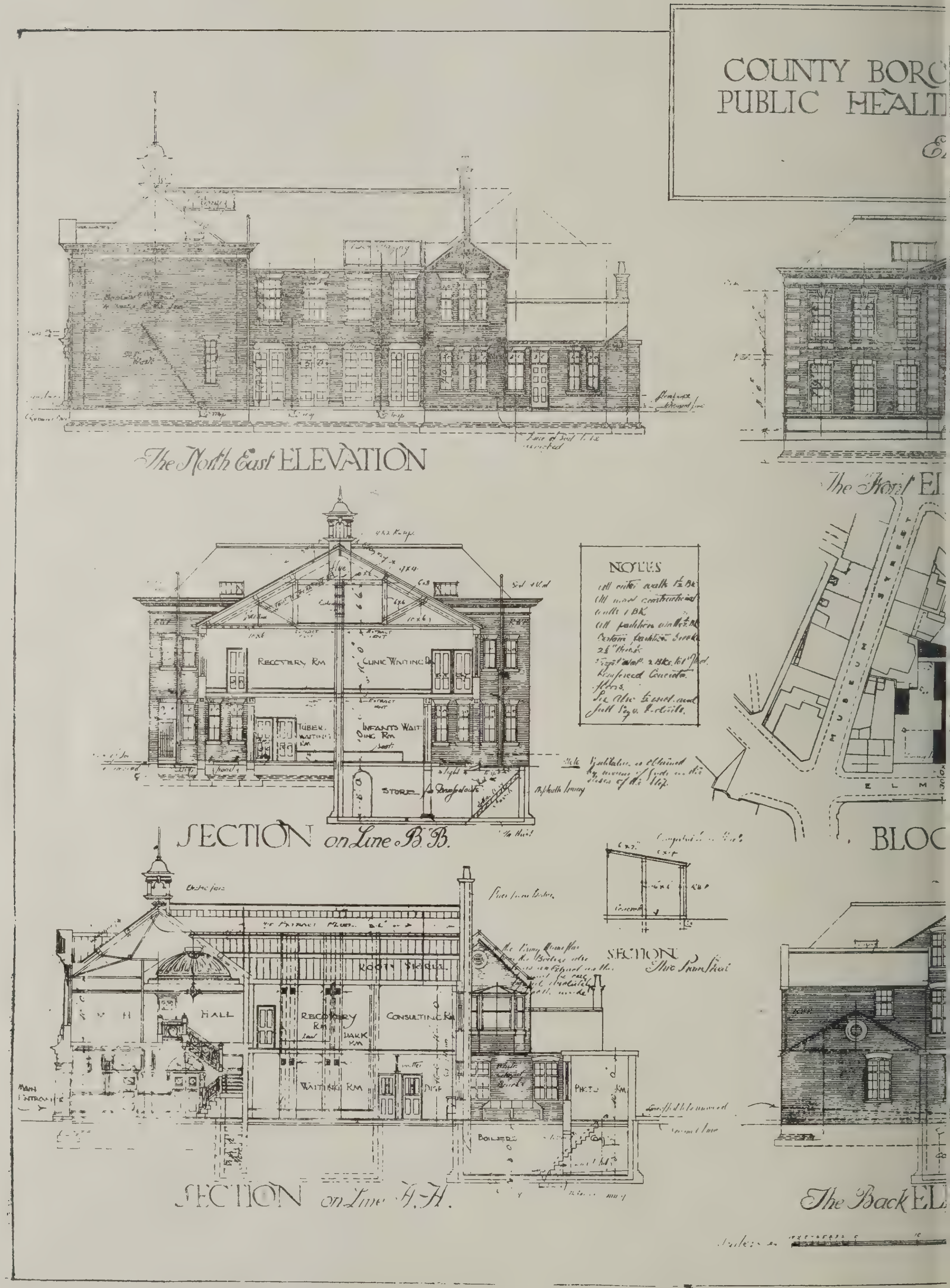
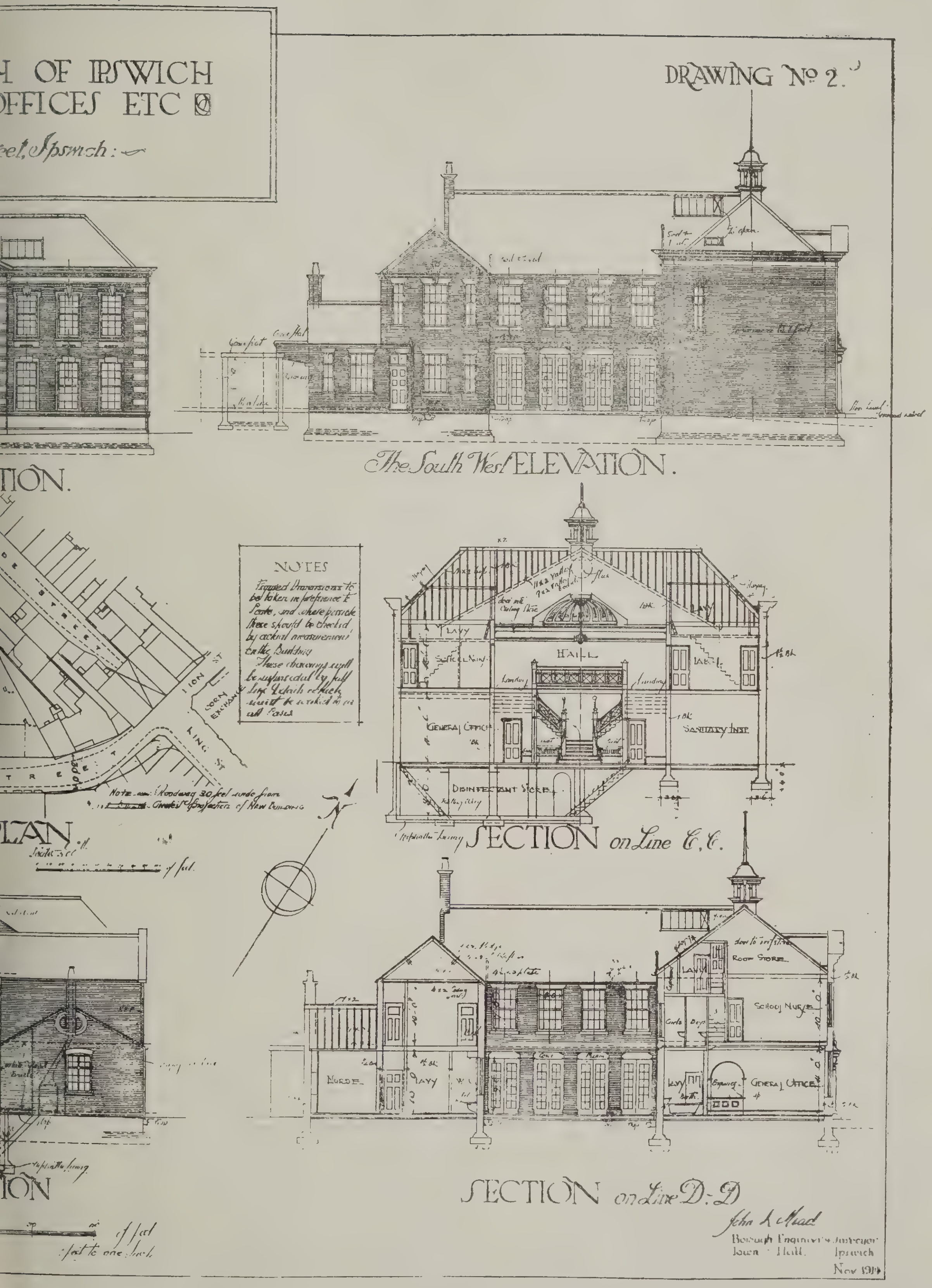


ARCHITECTS' WORKING DRAWINGS (SERIES III.) I.—PUBLIC HEALTH

JOHN R. MEAD (BOROUGH


H OF IPSWICH
OFFICES ETC
eet, Ipswich :
DRAWING No. 2.
The South West ELEVATION.
TION.
NOTES
Figured Dimensions to be taken in preference to Scale, and where possible these should be checked by actual measurement on the Building
These drawings will be superseded by full size Details which will be supplied in all cases
LION ST
CORN EXCHANGE
KING ST
Note — Roadway 30 feet wide from Greatest Projection of New Building
LAN.
of feet
HALL
LAVY
SCHOOL NURSE
LAB.
GENERAL OFFICE
SANITARY INSP.
DISINFECTANT STORE
SECTION on Line C.C.
ION
of feet
feet to one Inch
ROOM STORE
NURSE
LAVY
GENERAL OFFICE
SECTION on Line D.D.
John A Mead
Borough Engineer's & Surveyor
Town Hall. Ipswich
Nov 191

ES, ETC., ELM STREET, IPSWICH: BLOCK PLAN, SECTIONS, AND ELEVATIONS.

EER AND SURVEYOR), ARCHITECT.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

MAY 1, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1217.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restric- ons on paper supplies, all elements of waste must rigorously excluded. Our readers, we are sure, ill gladly assist in promoting this object, which is item in national economy. They can co-operate ith us effectually in either of two ways—(1) By acing a direct subscription for this Journal, or (2) placing with a newsagent an order for its regular elivery. Casual purchases—now here, now there— eate a serious discrepancy between supply and mand, and cause wastage of effort and materials.

N the annual report of the R.I.B.A., which has just been published, there is more matter for reflection than for comment, and not much for either. Con- ntious issues having been suspended, the report is ill and the critic is nonplussed. A few friendly oservations, however, may possibly be in order. hy, for example, should the council be so effusively ateful to Mr. Sidney Webb for telling the Institute few truths? As we said at the time, we greatly lmired the philosophical tone of Mr. Webb's ldress; but, really all that he told the Institute ought have been apparent without the aid of his oquence. Probably it was, or the council would not ive been so strongly impressed by it. They had a bating idea that two and two made four, but were capable of effecting the synthesis until Mr. Webb owed them how to do it. If he had said anything of hich they were not already convinced, they would ive repudiated him as a rank heretic; but he went to le Institute with something of the reputation of a stroyer of cherished illusions, and the members who ld steeled their hearts for bitter antagonism towards m were astonished to find themselves in agreement th every word he said. Hence a violent revulsion om their initial hostility: they fell on his neck and ept tears of joy and repentance, and some of the ecious drops bedew the report. But this is all per- ctly natural. Publicists seldom or never originate ything: they merely bring things to a focus. That what Mr. Webb did, and he did it exceedingly well, vesting common sense with an oracular sanction that alifies it for adoption.

* * * *

Arguing on similar lines, it may be assumed that it ould never have occurred to the Local Government ard that architects should be employed on housing hemes unless some competent body had disclosed is subtlety. It took a deputation of members of the stitute and representatives of allied societies to cogitate this daring proposition, and, after it had en formulated, the President and Sir Aston Webb troduced it to the notice of the L.G.B., whom it ems to have interested by its novelty and audacity. nder the stimulus of the war, Government Depart- ents are much more easily accessible to new ideas an they are in the lethargic time of peace; and it therefore the less astonishing to read in the I.B.A. report: "It is satisfactory to mention that the ocal Government Board have lent a favourable ear their representations, and have declared their inten- on of securing the employment of architects in using schemes over which they have control." riends, Romans, countrymen! Lend me your ears"—that is, your favourable ear. But is it not passing strange that the fate of a mere matter of plain common sense should depend on the loan of an ear? Yet this is how the world wags, as Shakespeare well knew when he laid so much stress on "ear-tickling commodity." Nevertheless, the Institute is to be warmly congratulated on the success of its representations, and on the ability of its representatives. Sir Aston Webb and Mr. Hare deserve the thanks not only of the Institute, but of the entire profession for the skill with which obviously they have managed what, after all, must have been a somewhat delicate mission. For in such matters it is rarely sufficient to have a good case: usually it must also be presented diplomatically.

* * * *

Credit should be given to the Local Government Board for the wisdom it has shown in availing itself of the help that the Institute and similar organisations have placed at its disposal; and we have always felt that the resultant national housing competition was completely justified by the circumstances in which it was undertaken, whether or not it was theoretically the best method of dealing with the problem, and whether or not the outcome is completely satisfactory. At all events, it is a great step in advance to find a Government Department and the professional organisations working together for the common good in a national emergency; and it is gratifying to learn further that the Council of the Institute have been frequently consulted by Government Departments on questions connected with the building industry; also that architects have been appointed to positions in various departments—notably at the Local Government Board, the Ministries of Munitions, Reconstruction, of Works, and of National Service, and the Board of Trade. That we hear privately of instances of unsuitable tasks and inadequate pay is a minor matter, and one on which, at the present moment, it would be injudicious to lay much stress. It is sufficient to know that doors previously bolted and barred now stand ajar, and anon may open more hospitably. Merely personal considerations count for but little, and, indeed, will have to be closely watched in relation to their bearings on the "unity of the profession." Looking at the matter steadily and with due detachment, it is impossible not to feel that honorary service by the élite, and moderate remuneration for the rank and file, are conditions that make for purity. The great point is that the profession has won recognition, and has been at last accorded opportunities for usefulness to the State.

* * * *

In addressing a memorial to the President of the Board of Education on the neglect of building as a subject of study in the common-schools, the Council have acted with commendable breadth and liberality of outlook. Everybody should take an interest in housing; and the position of the architect, as well as the quality and character of his work, would be vastly improved if he had to deal with an intelligent rather than with a crassly ignorant public. To enlist the sympathy of the educational authorities, and, through them, of teachers and pupils, is really to go to the root of the larger questions of professional and technical training; and it is rather astonishing that in the recently issued Report of the Committee Appointed by the Prime Minister to inquire into the Position of Natural Science in the Educational System of Great Britain, building science is completely ignored. It is realised by the Government Committee "that many teachers have become so dominated by the idea of the supreme value of experimental work that they have left on one side and neglected those sciences which do not lend themselves to experimental treatment in school: the tendency has been to restrict the work to parts of physics and chemistry, in which the boys can do experiments for themselves"—in other words, that the teaching has borne but little relation to practical affairs—and yet there is no suggestion that the chemistry of building materials, the mechanics of building construction, the physics of sanitation, which are all matters of intimate concern to everybody who lives in a house, could be most practically taught, the school itself being taken as a model by which the science of building could be demonstrated. Building being one of our largest industries, it follows that a considerable percentage of the "school population" will be engaged in it; and it would be a great advantage to catch them when they are very young. Fewer of the unfit would then drift into it, and more of the fit would be attracted to it; for all would have the opportunity of ascertaining whether or not they had any liking or aptness for it.

* * * *

Writing last week of the ill-advised comparison of St. Mary Woonoth with St. Sulpice, Paris, we had intended to observe, had space allowed, that no one would have the audacity to compare the interiors, St. Sulpice being a treasury of art. Figures of Faith, Hope, and Charity adorn the pulpit, twelve grand Composite columns support the organ gallery, and the organ-case, the finest in Paris, shows seventeen figures playing on musical instruments or supporting cornucopiæ. There is a rather overwhelming Lady Chapel, rich in marble and gilding, its double dome adorned with paintings by Lemoine, its walls showing work by Vanlos, Dejuinne, Drolling, Picot, Rémond, Pierre, Granger, Pereda, Brun, Guillemot, Cuny, with statuary by Desbœufs and Droz. On the pavement of the transept of the church (which is cruciform) is traced a meridian line made by Lemonnier in 1743. Sun-rays, passing through a hole in a metal plate in the window, form on the pavement a luminous circle, about 10½ in. in diameter, which moves across the line, and at noon is bisected by it. Here is a hint for the school authorities. In some of the London schools, the points of the compass are painted on the floors. How much more vivid would be the lesson if the sun could be enlisted to teach it!

* * * *

When, some time ago, there arose a great outcry against the export of British cement to Holland, we did not join in the demand that this traffic should cease. Our abstention is now fully justified by the report of the committee appointed to inquire into the matter. They "have no hesitation in recommending the immediate resumption of the export of cement to Holland when the political situation permits, and they see no reason for applying to it any more drastic conditions than those in force at the time when the export was suspended." It was freely alleged that British cement was reaching the Germans through Holland, and much was made of the discovery in a captured German "pill-box" of a disc label which was thought to be of British origin, and the further discovery, in a captured German position, of British cement bags. It now turns out that the disc was Belgian, and that the bags had been taken by the enemy from Belgian firms to whom they had been lent before the war, the British firm to whom they belonged being able to declare that since the outbreak of the war they had
sent no cement to Holland nor to any other neut
country. So much for the value of circumstant
evidence, which minds in a state of morbid exciteme
are too apt to mistake for proof positive of what th
wish to believe. Holland must have cement, and i
on all counts better that we should supply it than t
the Germans should; political as well as commerc
considerations being involved: for, as the commit
say, "from the psychological point of view, the regu
import of even a small quantity of British cem
would go a long way to destroy the impression
Holland that the country must look to Germany a
Germany alone for supplies." A minor but nevert
less gratifying effect of this finding is the compl
vindication of the British cement manufactur
against whom wild charges of want of patriotism w
made.

* * * *

Shortly after the outbreak of the war, so
criticisms we found occasion to make on Germ
architecture were deprecated by corresponde
who rashly assumed that our strictures were dictat
by animosity rather than by æsthetic considerations
were, in fact, a sudden consequence of the war. T
this was not so—or, rather, that our opinion was
entirely opportunist—will be seen from the followi
extract from the Journal dated August 21, 1901, wh
our relations with Germany were entirely friend
"The competition design for the synagogue
Düsseldorf exhibits many of the good qualities to
seen in the work of some of the best German archite
though it also possesses the vagaries which have gi
rise to the question, 'Is architecture gone mad
Germany?' To ascertain that there is justificat
for this doubt, one needs only to inspect the desi
published in the German architectural papers,
dominant feature of which designs seems to be
unhealthy craving for novelty. Carving is applied
an amazing manner, the scale being appallin
wrong; decoration is spread over the walls regardl
of restraint or propriety; and a hundred-and-
novelties are introduced, not because they are
logical outcome of requirements or because of th
intrinsic fitness, but by reason of the insensate crav
of men who are architectural sots." That was writ
seventeen years ago, when the bare idea of war w
Germany would have been scouted by everyone in t
country as a monstrous absurdity.

THE PLATES.

National Housing Competition Designs.

THE four single-page supplementary plates
this week devoted to designs submitted in
Home Counties area of the R.I.B.A. Natio
Housing Competitions. (See page 203.)

The Magistrates' Room, Palais du Franc, Bru

The greater part of the Palais de Franc
demolished to make way for the Palais de Just
(erected 1722-1727), but there are still some imp
tant remains, including the Magistrates' Room, w
its remarkable chimneypiece. This was erected
1529-1533, in commemoration of the Treaty
Cambrai, after the designs by Lancelot Blondeel,
Bruges; the carving being by Guyot de Beaugra
of Malines, and seventeen other sculptors. T
lower part is of black marble, the four panels in
frieze, of alabaster, being sculptured with scenes fr
the story of the Chaste Susannah. The upper p
is of oak, the central figure being of Charles V., w
medallions of his father and mother supported
amorini on either side; the other figures above
panelling to right and left are—Maximilian of Aust
and Mary of Burgundy on one side, and Ferdinand
Aragon and Isabella of Castile on the other.

HERE AND THERE.

ARE we not a paradoxical people? A nation of hypocrites, our enemies call us, because we have a habit of disguising our real character. For xample, there is no better scientific capacity than urs, and yet we—that is, the bulk of us—neglect cience scandalously, and waste our energies on atters for which our natural qualifications are less bvious. I believe that we neglect science for much e same reason as that for which a Londoner refrains om going into St. Paul's, or the Abbey. He does ot despise these monuments. Quite the contrary. ut he feels that to enter them is a thing he can do at y time. Consequently he never does it. This minds me of something I once heard in St. Paul's. gentleman, obviously from his accent a Londoner, ood under the dome and said, with a comprehensive veep of his arm, "There! you must at least confess at you have nothing like this in New York!" His merican friend, whose attitude towards the sights of ondon could be easily inferred from the Londoner's ther desperate appeal, was not overawed. "Waal," drawled, "I guess we could build one like it if we anted to." "Ah, but you couldn't build the histori- l associations." "Shouldn't worry about 'em. Guess ey'd build themselves, give 'em a little time."

* * * *

These Americans are breezily incisive in speech. remember that one day as I was passing the old ewgate Prison, an American lady accosted me with, ay, sir! excuse me, but is this the town jail?". It as hardly that, but as explanation would have been fficult my answer was in the affirmative, and I left e lady ticking off the item in her notebook. She d "done" London's "town jail." For the benefit visitors—and, indeed, for the benefit of born ondoners and of the new lady-letter-carriers—our blic buildings ought to be legibly labelled, and not erely legibly, but beautifully, which is almost the me thing. How many Londoners could identify the London clubs in Pall Mall? Some of the embers can never feel quite sure that they have cended the right steps until they see the winsome in of the hall porter. If this functionary frowns, e intruder beats a hasty retreat and tries another ght of steps. This "offering up" or "trial-and- ror" process may go on indefinitely, unless a police- an or a post-lady can be interrogated.

* * * *

Is this a scientific method of conducting business? course, if the member were a musician he could hit on the right building by ascertaining whether the or-scraper was C sharp or the metal mat B flat; and architect could settle the identity with a glance. t the average member is inexpert—has neither an e for architectural form nor an ear for music, cannot stinguish between "Annie Laurie" and "Carry Me ck to Blighty," and has never perceived any striking fference between gay Corinthian and dull Doric. never goes to his club: he could never be certain of iking the right entrance. The one good feature of commandeering of club-houses by the Govern- nt is that the department in possession hangs out sign, or "sports its shingle" as our American ends would say. In America they order these tters much more scientifically. House-hunting is known there, identification being rendered simple d certain by the employment of figures. All you ve to remember is that the person you want is on oor 63, Block 999, 545th Street, 99th Avenue. thing could be more systematic; but the system mands "a good head for figures." Under this stem I should certainly get as hopelessly mixed as the celebrated Mr. Spooner was when he lost a precious day searching for the sign of the "Dull Man at Greenwich," his real objective being the "Green Man at Dulwich."

* * * *

It was a very happy idea to number houses, although it ruined the sign-painters. Yet the signboard habit lingered long, and can hardly be said to be wholly extinct even now, seeing that an inn without a sign would be difficult if not impossible of discovery; while the pestle-and-mortar of the apothecary, and its kinsman the barber's pole, are still frequent; the former being specially common in Scotland. I seem to have read somewhere that the barber's pole is of cruel significance. It was the staff which the patient gripped to steady his nerves when the barber-chirurgeon bled him; the red stripe round it is a blood-stained bandage; and the gilded knob at the upper end is a diminished representative of the bowl in which the blood was caught. It is an interesting but a rather nauseating survival, and I rather wish that the London County Council, in its zeal for getting rid of objectionable signs, would include this, the most ghastly of them all.

* * * *

What a brain-racking business it must have been to invent a distinctive sign, and how clumsy the addresses were! If your house had not a sign, you had to indicate your location by reference to the nearest landmark—against Temple Bar, or ten doors to the west of the Dog and Porridge Pot, and so forth. Here is an actual example from the "Postman" of 1707: "Mr. Benjamin Ferrers, Face-painter, the gentleman that can't neither speak nor hear, is removed from the Crown and Dagger at Charing Cross into Chandois Street, next door to the sign of the Three Tuns in Covent Garden." Why "Chandois," I wonder?

* * * *

That discreet reticence of the face-painter calls to mind the reckless lavishness of the modern fascia-painter. One could wish that the restrictions under the war would teach him, or his employers, a habit of economy in time, money, and materials. Of each of these precious commodities he uses thrice as much as he ought. His lettering is three times too large. You cannot get him to understand that if, instead of filling up his fascia to its extreme edges, he confined his lettering to the middle third of it, the message would be about three times as legible and about three thousand times more respectable. His one idea about space is to fill it, which is perhaps the easiest way to manage it, but is certainly not the most thoughtful, nor the most artistic, nor in any way the most economical. But, as Mr. Quennell has said, what the public wants is quantity; and the qualitative analysis of fascias is at present beyond the skill of the older generation of sign-writers. There is springing up, however, a fine new school of letterers, who know the value of space, scale, and proportion. If only the shopkeepers could be converted to the true doctrine of the better lettering, buildings that are now disfigured would be adorned; and I am sure that architects, who are themselves the best of letterers, are doing their utmost for the promotion of purity in this kind. As an important step towards reform, I suggest worrying the borough councils into labelling their streets decently. It is necessary to coax the shopkeeper; but over the local authority we have some power of compulsion. Let us exercise it, lest one bad name-plate corrupt an entire street, and a score of such atrocities ruin a housing scheme.

DIOGENES.

THE NEW SPIRIT IN INDUSTRY.

BY PROFESSOR C. H REILLY, M.A., F.R.I.B.A.

IT must be obvious from any survey of working class opinion, whether as put forward in Trades Union Congresses or through the Press which interests itself in such matters, that a great change has been taking place during the last three years in the ideals which organised labour in this country is setting before itself.

This change, which had begun before the war, has been emphasised in every, or nearly every, conflict between employers and employed which has since taken place. Roughly, the change is from the purely material demand for increased wages and shorter working hours to the more spiritual one for a share in the control of their own labour. It is a demand with which we can at once sympathise, for it is one by which the worker raises himself from the position of a wage-slave compulsorily selling his labour as so many foot-pounds of more or less regulated physical force, to one approaching in direction, however distant it may be in fact, the ideal of all human activity—artistic creation. To share, however remotely, in the joy of creative work would be a new impulse of unmeasured potency in the life of the ordinary factory hand. In all the more highly organised manufactures this joy, even in its lowest forms of workshop management and organisation, is denied to 90 per cent. of the workers. The vast extension of the factory system of sub-division of labour, which the war has brought about, has made it still more remote. The introduction of woman labour on a large scale has further lowered the average quality of the work demanded, until in the repetitive production of such things as the stampings required in so many forms of munitions one feels that the woman is only a link in the machine—a link which the engineer has not yet had time to reduce to an additional lever or cog. In other forms of labour, such as digging or brick-laying, where suitable machinery has not yet been invented, the so-called methods of scientific management have been introduced. Scientific management is briefly the name given to a method of handling labour which was brought here from America. The stop-watch is the essential element in the system. All actions of the workers are strictly regulated both in time and space according to rules empirically discovered to be the most efficient. The efficiency, however, is measured by the output in bricks laid, yards dug, or whatever the work may be, against a money cost. The result to the workman over a period of a year or even a month is not considered. He can be replaced from the waiting pool if he falls out. What he personally sacrifices to the drill system is not measured. The man who may not even call his hand his own, or lift it to do his job in the way which best suits his peculiar build or character, loses something not readily to be made good by increased wages. Scientific management as at present understood is but another term for increasing the human cost in labour. Whereas, the machine is designed, and, if it were intelligently used, could be made to save labour of its worst drudgery, scientific management seems designed to save the machine by reducing labour to its level. The net result of such methods of work is the net result of industrialism wherever human costs have been disregarded—an increase of slums and slum attributes at one end of the town, and an increase in undigested expenditure at the other.

These things being so, it is of extreme interest that working-class opinion should at this moment
have the energy and foresight to attempt a
scheme by which the personality of the worker c
be saved. It would be so easy to be satisfied wi
the big wages which the ordinary laws of supp
and demand have brought about, and to sink t
craving for self-expression in mere self-indulgenc
Indeed, one can sympathise with the idea whi
prompts the girl munition worker in her scan
hours of leisure to don any plumage or fur co
which helps her to forget the machine shop a
regain for herself some sense of personality. Th
however, is but the lowest exposition of the instin
of self-expression. The higher, and the one whi
I think carries with it the germ of a new order
industrial life, is that shown in the demand put f
ward for the recognition of shop stewards. Th
may seem a very small thread on which to suspe
a new world, but the evidence for its importance
to be found in the outcry which the demand at on
aroused in the capitalist Press. "The Times
had a series of articles to prove the shop stewa
movement was the beginning of the Russian revol
tion in England, and in a sense "The Times" w
right. The movement for the control of indust
by the workers, or the democratisation of industr
as it is called, is something very different from t
old Collectivist Socialism to which labour has
long given its allegiance. The war has proved
all brought into contact with that phase of it, th
State ownership or State control of industry, wh
it brings with it hardly any amenities to the work
beyond those already given by the more benevole
employers, in no way solves the main question
how to bring back to work the interest which w
its invariable concomitant until the machi
appeared. Indeed, with the vast increase in t
rate of production which the war has brought abou
the element of joy in work has receded further a
further. To begin with, the desire to help the w
may have taken its place, and have given a certa
sense of satisfaction. But this will pass with t
war, if it is not passing already. The employe
on the other hand, having discovered that th
were, before the war, only reaping a third or ev
a quarter of the possible productivity of t
labourers they employed, will do their best to ma
tain the standard, and if they can keep up the ra
of wages it is not likely to fall. Indeed, it is or
by this increased productivity that we can hope
pay for the war. It becomes, therefore, mo
urgent than ever to find some solution to t
problem of giving the worker a real interest and n
a merely monetary one in his work.

The solution which the youngest school of trac
unionists in England has given to this problem
called by them Guild Socialism. The correspondi
French and American solution has been called Syn
calism. The difference, roughly, is that the Engli
movement aims at co-ordinating the whole of
industry throughout the nation, just as the Engli
trades unions (out of which, according to its prophe
Guild Socialism is to grow) aim at becoming natior
institutions. French Syndicalism, on the other har
is sporadic in its character and manifestations, just
the French trades unions have been. Fren
Syndicalism aims at seizing the industries of a distr
and running them on communal lines. This also see
to be the basis of the Russian idea. The Engli
scheme, as far as its theory has been developed in t
"New Age" and elsewhere, aims at an organis
State—not merely congeries of communes consisti
of a Parliament of consumers on the one hand anc

eries of monopolist guilds of workers on the other. 'hough one can at once admit that this conception of ie State is a little more concrete in substance than ie condition of almost pure anarchy suggested by the 'rench and Russian Syndicalists, it is obvious that a tate so formed would be a very loosely compacted ffair. The guilds within the State would command om their members a higher allegiance than the State self. In such a State, moreover, any single guild, ke the Transport Guild, might exploit for its own dvantage the rest of the community. The State 'ould not therefore be well equipped to enter into a 'orld commerce, much less to enter into a world war.)n the other hand, no State could well have been in a 'orse position to undertake a collectivist activity, ich as this war has proved to be, than was our own idividualistic one, with its god of private enterprise, i which great and small did not cease competing with ne another for wealth, although the common enemy 'as at the door. Germany's success has proved, to ie confounding of old-time international Socialists, iat the highly collectivist State produces, at any rate)r a short time, the strongest possible war machine, nd that to combat such a machine it is necessary to mit private liberty day by day. Such war expedients, owever, do not affect the main issue. If to beat ermany we have had for a time to become more erman than the Germans, it does not mean that we iall value our liberty the less when we return to it. nyone who has served during the war for the first me as part of a Government machine will value it a iousand times more; indeed, it is difficult to conceive worse fate than to remain for life in a subsidiary fficial position. There can be few things more etrimental to character than to have above one a ring of autocratic superiors, except to have a similar ring of dependents below one. Whichever may be ie worse, however, the ordinary Government official iffers from both. At all costs, then, the so-called rain-worker must find an escape from the blight of ficialdom, just as the so-called manual labourer must scape from the influence of his machine, whether it e a mechanical device or the shackles of scientific anagement. And the only avenue of escape that is sible for either, unless we go back to primitive narchy, with each individual or family a self-support- ig unit, appears to lie in some form of democratic ganisation, in which the freedom of the individual express his will is safeguarded, while the results of is labour can be combined with that of his fellows.

Further, to make any such scheme of value, it is 'ident that in the industrial unit, whatever it may be -shop, factory, or guild—the power of expressing ersonality must begin in the lowest ranks, for it is at ie bottom that it is most lacking. The Guild ocialist and Syndicalist have an alarming way of pressing this truth by saying that the control in dustry must be from the bottom upwards, instead of om the head downwards, and the Bolsheviks seem be doing their best to put this theory into the most teral practice. Such drastic revolutions, however, e not the English method. The election of a shop eward, or even of a foreman by the shop workers, is very different thing from the sudden expulsion from dustry of everyone who cannot, on some arbitrary finition be termed a member of the proletariat. Yet obably in both cases the fundamental idea is the me; that is, to rescue for the worker the personality hich till now has been absorbed or even lost in the achine. One can see at once how the dullest of orkers would suddenly wake up if asked to vote as who should be the foreman immediately above him.

What, then, are the peace conditions under which e necessary sense of responsibility can best be eveloped? Is it possible to envisage a type of indus- al unit in which efficiency of output is maintained, d at the same time the personality of the individual worker enhanced rather than destroyed? This seems to be the real industrial problem to which all questions of wages and hours are entirely subsidiary.

As offering some sort of suggestion for a basis for a new industrial unit, it is worth while to consider for a moment the conditions under which a group of men work in a faculty of a University. Roughly, the conditions are as follows:—

1. Absolute security of tenure for life.
2. A fixed wage—sometimes a fixed minimum wage to which is added a small capitation fee, but the tendency is to an entirely fixed wage.
3. Individual responsibility to the faculty for a definite section of the total work.
4. Absolute control of the work by the members of the faculty acting through their elective officers.

Such a system as this, while respecting the liberty of the individual to the fullest extent, makes, nevertheless, a very strong and definite appeal to *esprit de corps*. The combination of conditions is in practice sufficient to attract men at a very much lower wage than they could reasonably expect to obtain in the competitive existence outside. Within the faculty all competition ceases. Promotion such as there is is from grade to grade and by general vote, but the rate of pay within each grade is the same. Of course, it will be justly said that the main incentive which brings men to live under such a system is delight in their particular work, which outweighs considerations of personal gain. That may be so, but it is in order to allow the introduction of some element of this delight in work, which is conspicuously absent from the present industrial system, that the parallel of Faculty Government is suggested.

It would appear, therefore, not an entirely hopeless problem to give some measure of self-government to a factory or shop provided the conditions of tenure were made sufficiently secure. Granted that, the herd instinct soon develops a sense of local patriotism. The factory becomes a common possession together with its dividends or portions of them. It is not at all impossible to imagine that workers so grouped would have the sense to find and employ at sufficiently high wages—much higher than their own (do we not so pay Vice-Chancellors?) — the required experts and managers. The real difficulty about Guild Socialism appears to begin when the organisation of industry on democratic lines spreads from the individual shop or business to the whole trade. The Guild Socialist always assumes that competition between individual factories or groups of factories is to be abolished. The whole of a trade or industry is to be organised on an elective basis in a corresponding way to a trades union. It is not, however, the size of the resulting organisation which is the stumbling-block. The war has seen organisations quite as big efficiently and economically managed, and we may assume the nation would go on producing its Levers and Johnsons, for whose abilities the industrial guilds would offer full scope. But with the productive side of industry so organised, it appears doubtful whether there will be any power left in the State strong enough to hold each guild in check and to balance one guild against another. Who is to equate the services rendered? By what basis can units of transport be measured against units of mining? What is to prevent the Guild of Miners selling their coal at a price which will leave no surplus for leisure to the other guilds? The Guild Socialist replies by saying there must still be a parliament of consumers who will regulate these things. With the experience, however, of the present power of railway capital in Parliament, it is not very hopeful that, when railway capital gives place to the solid interest of all railway workers, Parliament, which now finds it so difficult to hold the balance fairly, will be any more successful then.

(*To be concluded.*)

R.I.B.A. ANNUAL REPORT.

The report of the R.I.B.A. Council for the official year 1917-1918, which has just been issued, is too long for reproduction in full, but some salient features are here extracted and further excerpts will be given next week.

Since the publication of the last annual report the Council have held twenty-two meetings.

Besides the normal losses of members the Council have to record the loss of 1 Fellow, 18 Associates, 8 Licentiates, and 14 Students who have fallen in the war.

Membership.

The membership now stands at a total of 2,514, comprising 838 Fellows, 1,631 Associates, and 45 Hon. Associates. During the official year since the last annual general meeting 19 Fellows and 10 Associates have been elected, as against 19 Fellows and 23 Associates the previous year. There are now 1,822 Licentiates on the roll, as against 1,890 last year. Since the publication of the last annual report 10 Licentiates have passed the examination qualifying for the election to the Fellowship, and 9 of these have been duly elected as Fellows.

The Examinations.

During the year 47 candidates for Probationership have taken advantage of the new regulations and have furnished to the Council satisfactory evidence of their attainments and been registered as Probationers.

The Intermediate and Final Examinations have been held once only during the official year, viz., in June. Thirty-four Students have been added to the register during the year, and 4 candidates have passed the examination qualifying for Associateship.

Royal Gold Medal.

The Royal Gold Medal for Architecture is to be awarded this year to Mr. Ernest Newton, A.R.A., Past President, in recognition of the merit of his executed work. His Majesty has graciously signified his approval of the award. Mr. Newton's portrait, painted by Mr. Arthur Hacker, R.A., which was in the Royal Academy Exhibition of 1916, was formally presented to the Institute on the occasion of Mr. Newton's retirement from the chair last June.

Members with the Forces.

Members who have joined the Forces since the outbreak of war now number 79 Fellows, 536 Associates, 333 Licentiates, and 300 Students.

Altogether the Institute has lost in the war 1 Hon. Fellow, 1 Hon. Associate, 5 Fellows, 55 Associates, 17 Licentiates, and 37 Students.

The Council recall with pride the brilliant positions achieved in a wholly unexpected career by members of the Institute, and the many distinctions won by members and students for conspicuous bravery and gallant and distinguished service in the field. The following have been noted in the "Gazette" or have been intimated to the secretary; there are doubtless many others: V.C.—Capt. E. N. F. Bell (Student). C.B., C.M.G.—Brig.-Gen. Charles Rosenthal (A.). C.M.G.—Brig.-Gen. A. B. Hubback (F.). D.S.O.—Lieut.-Col. J. Maurice Arthur (Licentiate); Lieut.-Col. A. Brewill (F.); Lieut.-Col. T. Cecil Howitt (A.); Lieut.-Col. Victor A. Flower (Licentiate), since killed; Lieut.-Col. John Brown (Licentiate); Major H. Phillips Fletcher, Croix de Guerre (F.), since accidentally killed; Major H. P. G. Maule, M.C. (F.). M.C.—Major P. G. Fry (Licentiate); Capt. Basil White Ridley (A.); Capt. P. Hubert Keys (A.); Capt. A. M. Barrowcliff (Student); Capt. S. H. Fisher (A.); Capt. H. G. Wicks (Student); Capt. C. E. Clouting (A.); Capt. H. E. Moore (A.); Capt. D. McL. Craik (F.); Capt. H. C. Atkin-Berry (Student); Capt. W. N. J. Moscrop (Student); Capt. H. L. Fetherstonhaugh (A.); Capt. Percy T. Runton (A.); Capt. F. W. Moore (A.); Lieut. L. A. Culliford (A.); Lieut. W. G. Newton (A.); Lieut. C. H. Calvert (A.); Lieut. W. H. Hillyer (Student); Lieut. G. H. Jones (A.); Lieut. H. W. Mann (A.); Lieut. E. A. Rahles Rahbula (A.); Lieut. A. M. Durrant (A.); Lieut. Gordon Leith (A.); Lieut. H. S. Triscott (A.), with bar; Lieut. John Woollatt (A.); Lieut. J. H. Gibbons (A.); Lieut. Wilfrid L. Mellor (A.). Croix de Guerre.—Commandant Christopher Groves (A.), French Army.

Appointments.

During the session the Council have made the following appointments of members to represent the Institute on the various bodies or for the purposes indicated: Mr. Reginald Blomfield, R.A., reappointed as a member of the Council of the British School at Rome. Mr. Henry Hartley reappointed as a member of the Court of the University of Liverpool. Mr. Mowbray A. Green reappointed as a member of the Court of the University of Bristol. Mr. H. D. Searles-Wood reappointed as a member of the Sanitary Inspectors' Examination Board. The President and Mr. Searles-Wood were appointed to represent the Institute at the conference for London, Greater London, and the Home Counties on Housing and Town Planning. Mr. H. V. Lanchester and Professor Adshead were appointed to represent the Institute on the Government Committee considering the question of the establishment of a Standing Committee of Professional Bodies in connection with the Board of Education. Mr. A. N. Prentice and Mr. Walter Tapper were appointed to represent the Institute on the Imperial Institute Committee on Indian and Colonial Marbles. Mr. Alan E. Munby, Mr. W. E. Vernon Crompton, and Mr. Digby Solomon were appointed to represent the Institute on the Imperial Institute Committee on Corrosion of Brass. The President, the Hon. Secretary, Mr. Arthur Keen, Professor Beresford Pite, and Professor Lethaby were appointed a deputation to interview the education authority in connection with the subject of training in secondary schools.

Housing of the Working Classes.

In the autumn recess last year a Committee consisting of members of the Institute and representatives of allied societies was constituted by the Council to consider the whole question of housing of the industrial classes from the architect's point of view, and to send a deputation to the Local Government Board. Among matters considered were the place of the architect in connection with housing operations proposed to be undertaken by local authorities, and the means whereby the central authority could control the schemes of local authorities so as to ensure that the best results are attained. A resolution was passed urging upon the Local Government Board that consideration should only be given to housing schemes where the plans had been prepared by persons properly qualified as architects both in the design and in the architectural lay-out and grouping of buildings; further, that the names ar qualification of such persons should submitted to and approved by the Loc Government Board before the schem were sanctioned. Both the President ar Sir Aston Webb, as members of commi tees formed by the Government to discu in connection with the housing questi building construction, materials, etc., ha had the opportunity of pressing upon t Local Government Board the desirabili in the interests of the public of employi competent architects and giving them pra tically a free hand from the start, not on in the design of the houses themselves, b in the general lay-out of the area to dealt with. It is satisfactory to menti that the Local Government Board have le a favourable ear to their representatio and have declared their intention of secu ing the employment of architects housing schemes over which they ha control.

Among other matters the Institu Housing Committee had arranged to di cuss were economy of lay-out and cheap construction, standardisation of part materials, dispatch in erection, buildin by-laws, etc. It became, however, u necessary for the committee to pursue the inquiries as later in the year the Gover ment decided to take the matter up, ar the council were asked to appoint represe tatives to give evidence on these question

Government Housing Schemes.

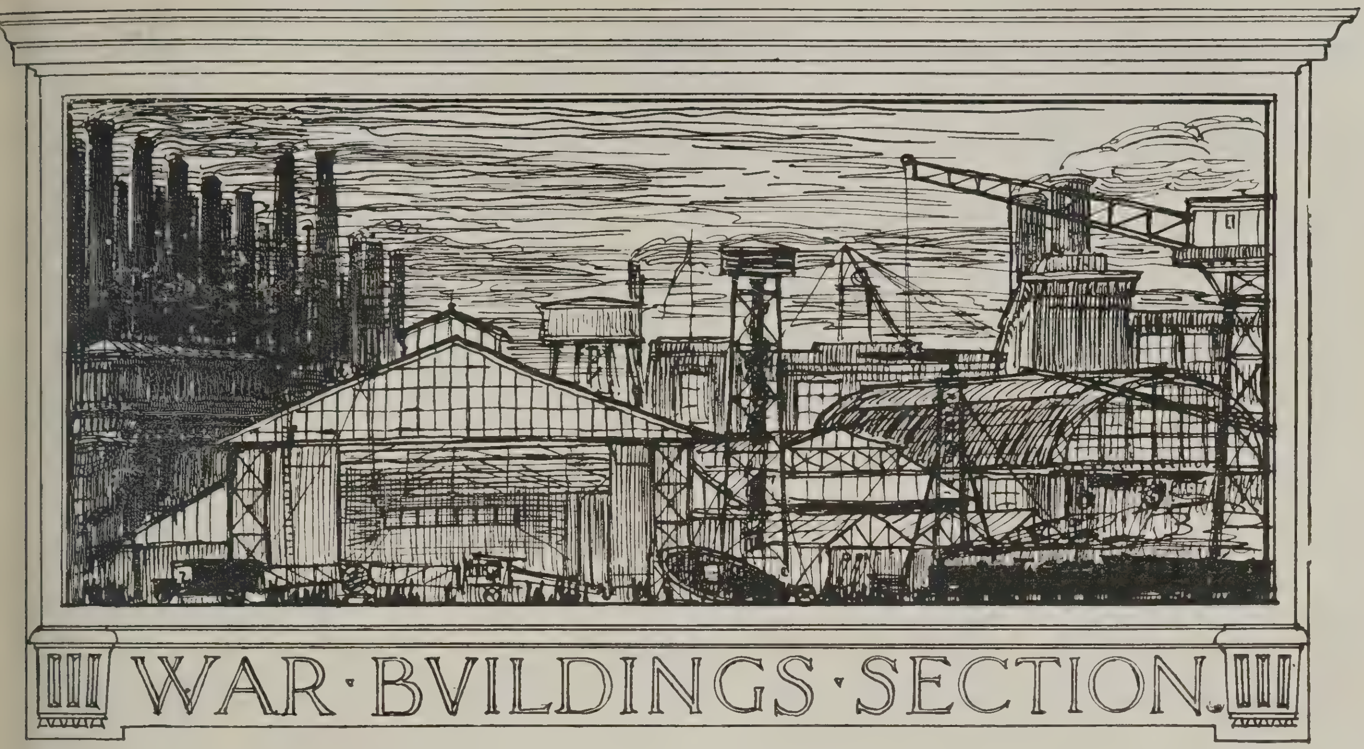
The Local Government Board havin invited the Institute's assistance in obtai ing the best typical plans of houses for t industrial classes and placed at the I stitute's disposal a sum of money for t purpose, the council organised a series competitions to be conducted simultan ously throughout the country by the Inst tute and allied societies. The plans obtained are to serve as guides to loc authorities and others, and to be used instructions to the architects employed o the schemes. In choosing the method obtaining designs by competition rathe than by commissioning a few architects prepare them, the Council were actuate by the consideration that while the w lasts architects had little prospect of pra tising and that the premiums awarded the successful competitors were full adequate to compensate for the exception conditions; further, that architects servin at the front would have their share of th work when peace is restored.

The results of the competitions have bee announced, but statistics may be usefull recorded here of the numbers who too part and of the designs received in th various areas:—

Area.	Number of Competitors.	Design receive
Home Counties ……	336 ……	686
Northern ……………	100 ……	226
Liverpool and Manchester …………	132 ……	301
Midland ……………	107 ……	248
South-West ………	67 ……	169
South Wales ………	66 ……	158
	808 ……	1,788

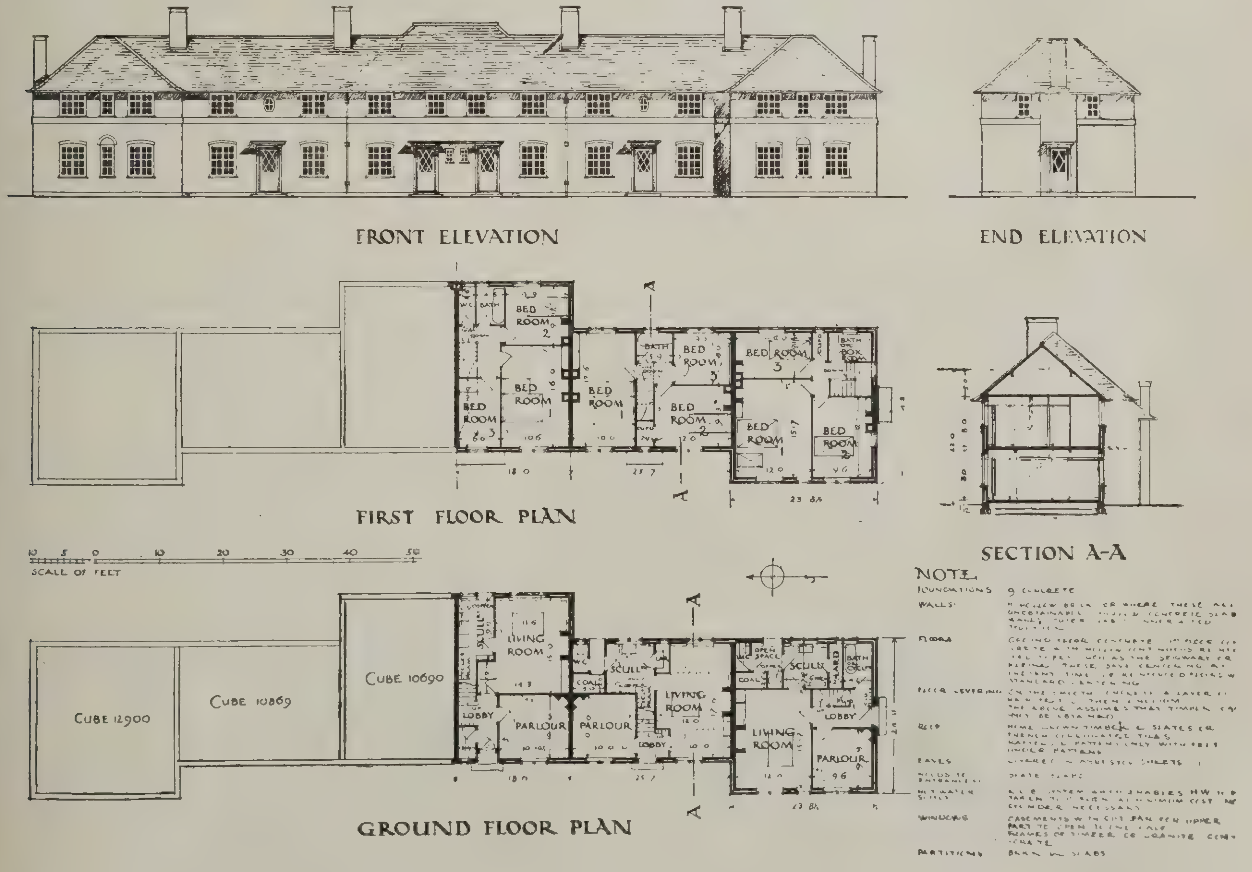
(*To be concluded.*)

[References to the following subjects ar held over: Architects and Governme Departments; War-time Employment fo Architects; Town-planning Schemes General Education and the Buildin Industry; National War Museum; Th Institute and the Allied Societies; Revise Form of Contract; Suspension of B laws; The Great Pyramid of Gizeh Scheduling of Air-raid Refuges; and a re ference to officials serving with the forces For brief comment, see page 197.]



THE NATIONAL HOUSING COMPETITION DESIGNS.

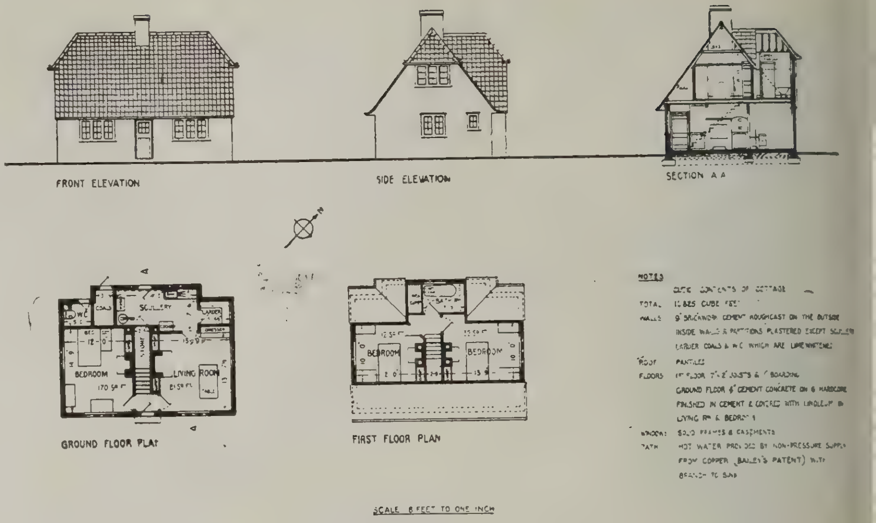
WE illustrate in this issue a number of the designs submitted in the Home ounties area of the National Housing ompetitions, recently conducted under e direction of the R.I.B.A. Permission to illustrate the designs was sought as soon as the awards were made public, but for some inexplicable reason the official consent of the Government Department concerned was not given until a few days ago. By the time this belated authority was received two of the most important designs (viz., Second in Class A. and First in Class B.) had been removed from the exhibition. We regret, therefore, that for



R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): SECOND-PREMIATED DESIGN, CLASS B.

COURTENAY M. CRICKMER, F.R.I.B.A., ARCHITECT.

the moment we are unable to show them, but we understand that they will be at our disposal later on. A critical article on the whole competition is unavoidably held over until next week, when we hope to be able to include, also, a selection of the designs submitted in the various provincial areas.


FRONT ELEVATION
SIDE ELEVATION
SECTION A A
SCULLERY
LARDER
COALS
W.C.
BEDROOM
LIVING ROOM
GROUND FLOOR PLAN
FIRST FLOOR PLAN
BEDROOM
BEDROOM
NOTES
CUBE CONTENTS OF COTTAGE
TOTAL 11,825 CUBE FEET
WALLS 9" BRICKWORK CEMENT ROUGHCAST ON THE OUTSIDE
INSIDE WALLS & PARTITIONS PLASTERED EXCEPT SCULLERY
LARDER COALS & W.C. WHICH ARE LIMEWHITENED
ROOF PANTILES
FLOORS 1ST FLOOR 7" x 2" JOISTS & 1" BOARDING
GROUND FLOOR 6" CEMENT CONCRETE ON 6" HARDCORE
FINISHED IN CEMENT & COVERED WITH LINOLEUM IN
LIVING RM & BEDRM 1
WINDOWS SOLID FRAMES & CASEMENTS
BATH HOT WATER PROVIDED BY NON-PRESSURE SUPPLY
FROM COPPER (BAILEY'S PATENT) WITH
BRANCH TO SINK
SCALE 8 FEET TO ONE INCH

SECOND-PREMIATED DESIGN, CLASS D. W. R. MOSLEY, ARCHITECT.

PLANNING, DESIGN, AND CONSTRUCTION OF SMALL HOUSES.*

BY FRANK BAINES, C.B.E., M.V.O.
(Principal Architect, H.M. Office of Works.)

The most important types of cottage are those containing: (1) Living room, parlour, scullery, and three bedrooms, with bath and the usual offices; (2) living room, scullery, three bedrooms, bath, and the usual offices. These are the two types which I have used far more than any others, and, of the two, the proportion of houses provided without a parlour is as four to one. The parlour question is a very difficult one. On the one hand, people prefer to have a large, pleasant living room, rather than a small pokey living room and a small parlour. On the other hand, people urge that the parlour is absolutely necessary for the purpose of the children studying and doing their lessons in quiet, for accommodating the piano and the household gods, and for placing the coffin, in the event of a death in the family. Further, when visitors call, and the head of the household has just returned from work, the only place where the visitors can be introduced is the living room, and the necessity of a parlour is urged as being the only way of giving the householder some sort of privacy before he has changed his clothes after return from work.

Another type of house which I have been repeatedly pressed to provide, ha been one containing living room, scullery with bath and the usual offices, and tw bedrooms, the bath in this case being i the scullery. Only a very small propo tion of such accommodation has been pro vided, but where it has been provided th accommodation has been found to b strikingly popular. The difficulty has, i certain cases, been met by providing suc accommodation plus a small parlour o the ground floor, which it is intende

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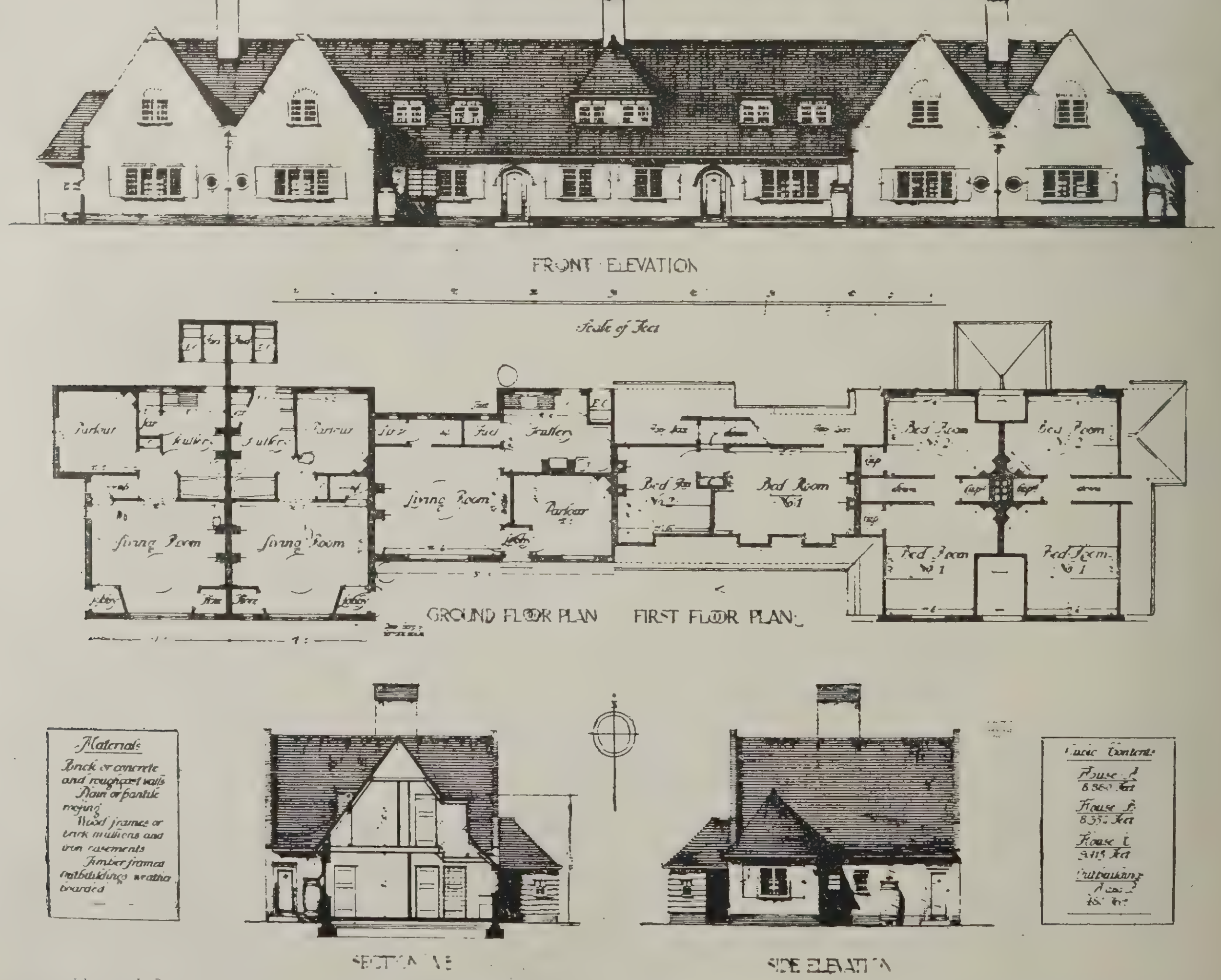
* Extracts from a paper read before the Royal Sanitary Institute, on Wednesday, April 24.



R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): SECOND-PREMIATED DESIGN, CLASS C.

C. WONTNER SMITH, F.R.I.B.A., ARCHITECT.

ould be used as a third bedroom when necessities of the family so require. has, however, been found that, rather n give up such a parlour, overcrowding been indulged in.

lats, with separate entrances to each, r in a block, of two storeys only, have n found to be very popular, the accom- dation consisting of good living room, llery, with bath, two bedrooms, and the al offices. This accommodation is ticularly popular with young married ples, and people with one or two chil- n. The practice, however, of erecting h accommodation in the form of flats not been found to be necessarily much aper than other types of accommoda- n. As regards the areas of the various ms, I think that the requirements of Local Government Board can be ely followed. As to height, my general e has been to allow for a minimum of t., though, in certain cases, this has n reduced to 7 ft. 9 in. Economy can effected in the construction of the roof utilising sloping ceilings in the bed- m, maintaining a minimum of two- rds of the floor area for the flat portion the ceiling, with a minimum height of t. for the springing of the sloping ling.

Materials and Construction.

The problem with regard to materials been an increasingly difficult one oughout the period of the war. Cer- n index materials for construction have ome increasingly scarce, and substi- es in various forms have had to be pted. It has been my experience, how- r, that no very original and entirely sh materials have been forthcoming, as result of the experience of the war, ich would help in the problem of hous- construction after the war. Materials ve undoubtedly been utilised in ways ich, before the war, would not have n considered; but entirely new and ginal methods of construction, due to lisation of new materials for purposes construction, have not been forth- ning.

should take it as an axiom that, pro- ed suitable materials can be found near any site, such materials should be used, vided that they are economical, gienic, and do not offend too grossly inst the amenities and æsthetics of the eme. Where large schemes are under- en, under drastic conditions with regard speed, it is undoubtedly easier and cker to assemble materials having a erent base than materials utilising lusively one base, as the labour required materials such as bricks, stone, con- te, timber, hollow blocks slabs, etc., is ead over more trades, and the materials obtainable in greater quantity.

urther, materials should not be used in scheme where their utilisation involves our which is not part of the permanent rk of the scheme, such as the use of ex- sive shuttering and false work for con- te construction, or where special techni- expert supervision and instruction is essary. One direction wherein I do feel t some form of advance could be made in regard to the methods of utilising terials available for construction.

he building trade to-day is largely using thods which were in use in the days of Pharaohs, and there is, undoubtedly, an ning for a mechanical genius, working e by side with a practical architect and ineer, for evolving mechanical methods supplying materials to scaffolds, mecha- al methods of bricklaying, mechanical methods of trench digging, foundation digging, concrete laying, etc., etc., which would probably revolutionise building methods throughout the world. As yet, however, the few mechanistic appliances which have been evolved in America and elsewhere have not generally been found to be applicable to house building, and the problem is one which remains to be solved in the future.

Now, as to details: Foundations are laid by me in concrete exclusively except where rock is found. Lime is used instead of cement, and where a good hydraulic blue lias lime is obtainable the result is thoroughly satisfactory. Ballast can usually be obtained near the majority of sites, and, in town areas, destructor clinker can be used and is an effective substitute. In stone districts local rubble makes an excellent aggregate, if required, or large stones laid and bedded in mortar give the necessary foundation. Although burnt clay has been used by me in certain instances, I have not found it entirely satisfactory.

It is certainly possible to dispense entirely with brick footings, as they are unnecessary where concrete foundations are provided. I prefer the damp-course to buildings to be of slate. Good bituminous damp-courses for solid walls, however, give satisfactory results. Bricks are readily obtainable over nearly the whole area of the country. Clay, suitable for brick-making, can be found in every county except Westmorland. It is inevitable, therefore, that bricks will be used to a greater extent than any other material, and although concrete has of late years undoubtedly come into its own I have rarely found that the use of concrete in house construction has been as cheap as that of brickwork. This appears to be true even when plenty of clinker or ballast and sand is available for concrete making, and even when concrete is suggested as an alternative for bricks costing as much as 45s. to 50s. per thousand.

(*To be concluded.*)

NEWS ITEMS.

Changes of Address.

His offices in Great Peter Street, Westminster, having been taken over by the military authorities, Mr. A. H. Ryan Tenison, F.R.I.B.A., is temporarily at the National Society's House, 12, Princes Street, Hanover Square, W.1 (telephone number, Mayfair 5714).

The offices of the National Federation of Building Trades Employers are now at 48, Bedford Square, W.C.1 (telephone number, Museum 3432), Pen Corner House having been commandeered by the Government.

Hackney Soldiers' Cottages.

The Board of Trade have licensed a scheme at Hackney to provide cottages on a communal basis, with baths, wash-houses, and entertainment hall, for a minimum of 100 disabled sailors and soldiers and their families, and for men in the police, postal, municipal, and railway service. It is proposed to raise a sum of £50,000.

Bonus for Building Trade Operatives.

The Committee of Production recently considered an application for a bonus of 12½ per cent. on earnings made by various trade unions on behalf of their members, being building trade operatives, in the employment of firms who are members of certain employers' associations. By their award, dated April 16, the Committee grant, from the first full pay after April 11, a bonus of 12½ per cent. on earnings to plain time workers, and 7½ per cent. on earnings to piece workers engaged on constructional or maintenance work, such work being munitions work, carried out by employers in the building trade, whether as contractors or sub-contractors.

War Memorial for West Ham.

Mr. W. Thorne, M.P., Mayor of West Ham, has arranged to open a fund for the erection of a memorial to the West Ham men who have fallen in the war. The memorial will take the form of an extension of Queen Mary's Hospital for the East End, formerly known as West Ham Hospital. At least £30,000 is required. About a hundred beds in the hospital are used by wounded soldiers.

Memorial to Fallen M.P.'s.

In the House of Commons, Sir W. Essex having asked for information respecting the memorial that was to be set up to those Members and officials of the House who had lost already, or might in the future lose their lives in the war, Sir Samuel Roberts, as one of a small committee whom the subscribers had appointed to select designs, said that subscriptions were asked from Members of both Houses of Parliament, and that over £2,000 had been obtained. It was felt that the memorial should be in a position where all strangers coming to the House might see it, and that limited the possible places. After a good deal of inquiry it was suggested that the big window in St. Stephen's Hall would be suitable, for all strangers coming to Parliament must see it, and the only objection was that the position beneath the window was rather dark. There would have to be some electric light contrivance which could be turned on when required. Three gentlemen were appointed to get designs, and these were now in the tea-room of the House. No selection had been made, and nobody was bound. It was perfectly open to the subscribers to turn them down and ask for other designs. Of course, the First Commissioner of Works would be finally responsible to see that the artistic beauties of the building were maintained.

OBITUARY.

Mr. William A. Scott, A.R.I.B.A.

Mr. William A. Scott, A.R.I.B.A., A.R.H.A., M.S.A., F.R.I.A.I., who died at Cannes recently, had been Professor of Architecture in the National University of Ireland since 1911. He was born in Dublin in 1871, the son of Anthony Scott, architect, and Catherine Hayes, and obtained his professional education at the Metropolitan School of Art, Dublin, and in the office of Sir T. Newenham Deane and Son, afterwards spending some years in London architects' offices, and holding an appointment under the London County Council. He returned to Ireland in 1902, where he designed and carried out the O'Growney Mausoleum, Maynooth, the Garden Village, Kilkenny, the Town Hall, Cavan, St. Mary's College, Galway, and other works for churches and schools. Mr. Scott studied and sketched in many Continental countries. He held various posts in Irish architectural societies, and had been Honorary Examiner of Planning and Design to the Society of Architects. He married in 1900 Catherine, daughter of Mr. Patrick Crumley, M.P., and left no children.

COMPETITIONS.

Public School Buildings, Bolton.

The following answers to questions and supplementary instructions with regard to conditions and instructions to be observed by competing architects in the above competition have been issued by the assessor:

Clause 13.—The designs must be sent in carriage paid, endorsed and addressed to the assessors not later than September 28, 1918 (in place of June 29), after which no design will be received. The conditions of competition may be returned on or before May 4 next, if so desired, or at any time on competitor's call to the Army or National Service.

Clause 18.—It is essential for competitors to submit complete plans, elevations, and sections drawn to a scale of 16 ft. to 1 in. with a block plan to the scale of site plan, and it is necessary that each design shall be satisfactorily illustrated. Sketch half-inch details are optional, but desirable. The consideration of designs submitted without the half-inch details will not be in any way prejudiced. Sketch perspective view not required and will not be admitted. Any reasonable addition shown, or variation in arrangement made, which is not actually mentioned or suggested by the conditions, but which the competitor may think advisable, will not be held to be a disqualification, but will receive full consideration.

Clause 21.—Estimate of cost to be based on cube measurements and the prices per foot cube, including electric lighting, etc., must be on competitor's judgment of the probable cost of his design as specified in Clauses 21 and 22. Boundary walls not to be included. General estimate only required of furnishings and laboratory fittings and professional charges. A complete approximate and inclusive estimate is desired from each competitor by the trustees and Lord Leverhulme, and the assessors will advise them thereon.

Clause 22.—The estimate of £50,000 for the first section must include an allowance for furnishings. It is desired that accommodation for both boys and girls should be provided in the portion first erected as far as possible.

Clause 25.—The present school for boys is accommodated in the block marked on the plan "Present Schools" and the building adjoining on the east side, but these premises will not be utilised as part of the new school buildings. They must not be interfered with until some portion of the new school is fit for occupation. See Clause 27. The present school for girls is not on this site. The building line to Chorley New Road is indicated by the front line shown as suggested position of new buildings and approximates to the line of houses. Excepting as regards general position, competitors must not in any way consider it necessary to follow the red lines, which only show a general arrangement of buildings, or take any sizes therefrom. (See Clause 26.) Gilnow Lodge is not occupied by anyone connected with the school, but a private road has to be maintained open to give access thereto from Chorley New Road; it is not essential that the present line of road should be maintained, though it now is in the most convenient position. The school grounds need not be railed off from the private road.

Clause 27.—No provision is to be made for housing the staff, but, if the plan allows the residences to remain, they may be utilised by the staff or as private boarding-houses for pupils, or may be let off; the efficiency of the school plan must not be interfered with thereby. Plan, section, and elevation of present swimming bath (to be retained for boys) are sent herewith, but must not be considered except as showing the building as now existing. The girls' swimming bath must be planned afresh and a small laundry attached thereto.

Clauses 28 and 31.—The school chapel, which may have galleries, is mainly for general assembly for morning and evening prayer for pupils and staff, but may be used for public service on Sundays and special occasions. It must be on the ground floor level, and the orientation is unimportant. A covered approach to the chapel is not essential.

Clause 29.—The trustees and Lord Leverhulme desire that the main buildings shall be designed in the Elizabethan or Tudor style of architecture, with the chapel of suitable Gothic character. All faced with Runcorn or other similar red-coloured sandstone.

Schedule of Accommodation.

Assembly halls, each to seat 500 on main floor, exclusive of gallery and platform, must be separate for boys and girls; each to be planned to be central and readily accessible from the school to which it is connected. Each assembly hall will also be occasionally used jointly and for public functions, generally connected with the school, when the galleries will be mainly used by the pupils; good access must be provided for the public.

The grouping of class rooms relatively to the assembly halls is in the discretion of each competitor.

Boys' School for Five Hundred Pupils.

Clause 32.—Main staircases not to be between walls, but with open balusters on one side.

Class Rooms.—One class room for fifty pupils; one class room for thirty-five pupils; thirteen class rooms, each for twenty-five pupils; ten class rooms, each for twenty pupils. Open fireplace to each class room.

The position of the senior class rooms is left to the discretion of each competitor.

Note.—The numbers of pupils are for floor areas only; each school is for 500 pupils, but increased area for accommodation is arranged in the class rooms to give greater elasticity in working the schools. The large class rooms are for double classes or special lessons, school meetings, etc.

Competitors who desire to plan their class rooms with a multiple of six in place of a multiple of five can vary them accordingly, but must provide for at least a corresponding number of rooms and accommodation. This applies to both schools.

Science Department.—The balance room to be between the chemical laboratories, but readily accessible to the advanced physics laboratory. Art Department: A modelling room to be arranged for in addition to the drawing, etc., rooms. Handicraft Department: To be planned so as to be divided into three manual rooms, one of which may be used for metal work. Staff Rooms: General staff rooms for seventeen men and seven women teachers. Library: For joint use of the two schools and accessible to each. The dimensions are at the discretion of the competitor. Living rooms for matron, porter, and his wife, and the servants in the main school buildings. Music room: Music class rooms for twenty-five pupils (not fifteen as given), and five practice rooms. Gymnasium: Size to be determined by competitor. Scout troop (100) with assembly and four small instruction rooms and office for scoutmaster. Cloak rooms for fifty monitors, 200 seniors, and 250 juniors. Service rooms are for cleaners, etc.

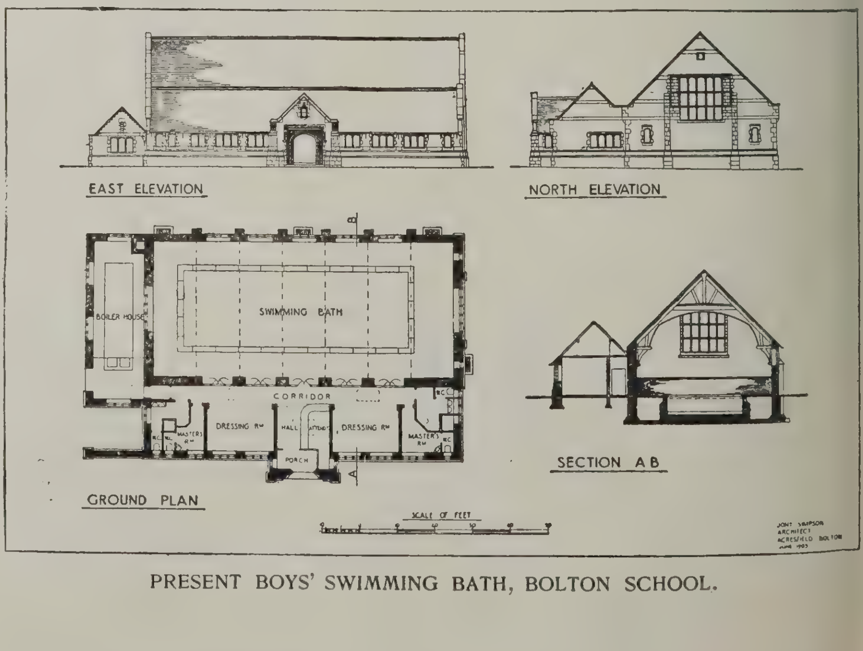
The Girls' School for Five Hundred Pupils.

Clause 33.—See assembly hall and staircase particulars as the boys' school.

Class Rooms.—One class room for fifty pupils, thirteen class rooms, each for twenty-five pupils; twelve class rooms, each for twenty pupils. Open fireplace to each class room.

Note.—As before to the boys' school. Space for book lockers not required outside the class rooms in the senior divisions of the girls' school. Science Department: Two senior laboratories are for advanced chemistry and advanced science, the balance room being readily accessible to the latter room. Art Department: A

(*Concluded on p.* xvi.)



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(*Continued from p.* 206.)

modelling room to be arranged for in addition to the drawing, etc., rooms. Housecraft Department to be complete, but without separate parlour, bedroom, etc. The cookery class room to be near the school kitchen. The matron's rooms may be adjoining this department if competitor desires, but the position is optional. Matron requires sitting room (convenient for service from kitchen), bedroom, and bathroom. Library for joint use of the two schools and accessible from each. (See boys' school). Music Rooms: Music class room for twenty-five pupils (not fifteen as given), and eight practice rooms. Girl Guides: 150 members. Cloak rooms for seventy-five monitors, 125 seniors, 125 intermediates, and 175 juniors. Swimming bath for girls to be planned small laundry.

General.

Clause 34.—Present cottages are av able for resident engineer and gro keeper. Competitors may show lodges if they consider scheme will be m complete with them, and they may placed up to road line.

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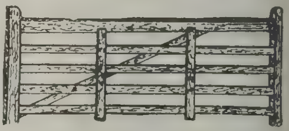

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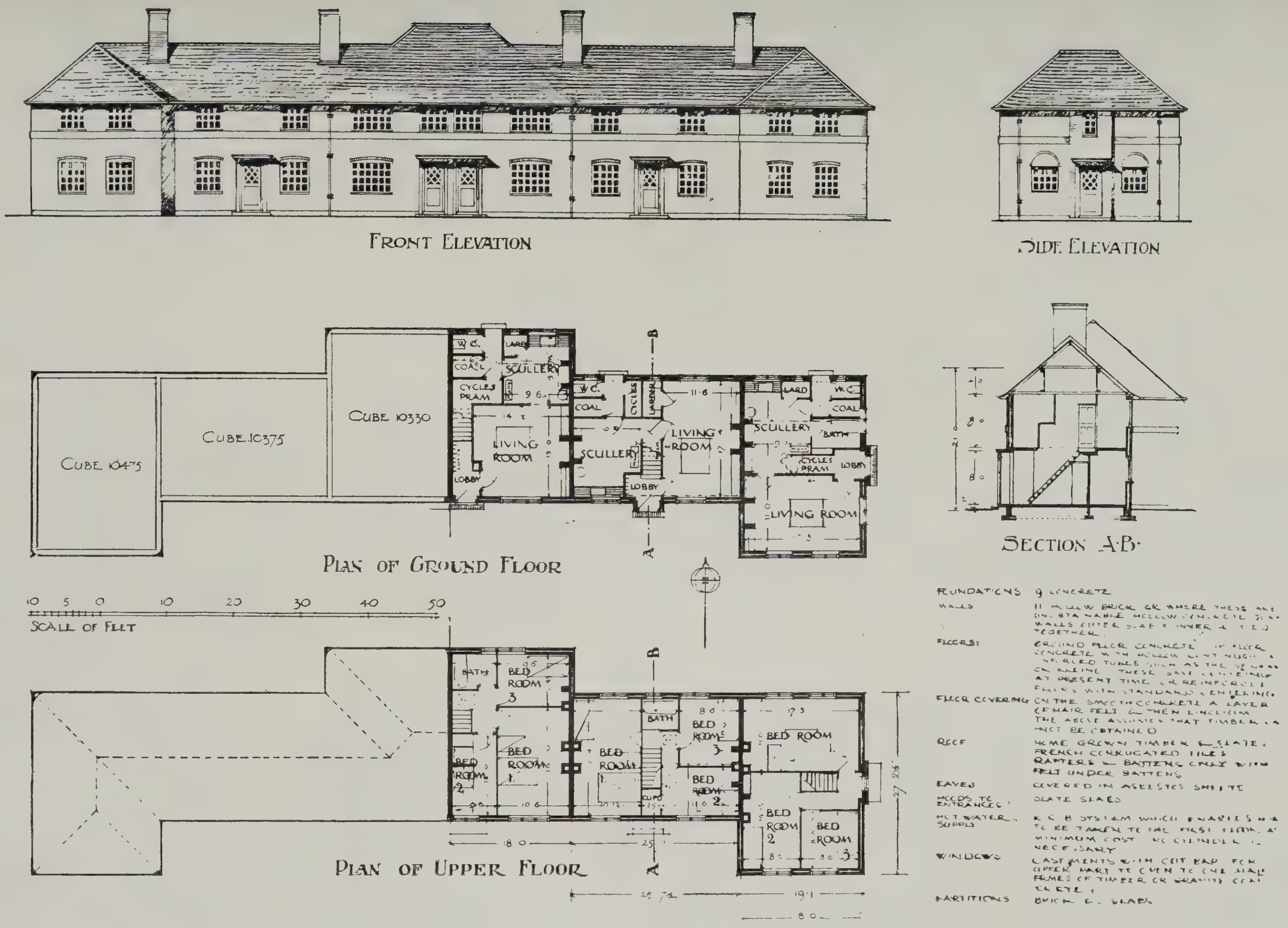

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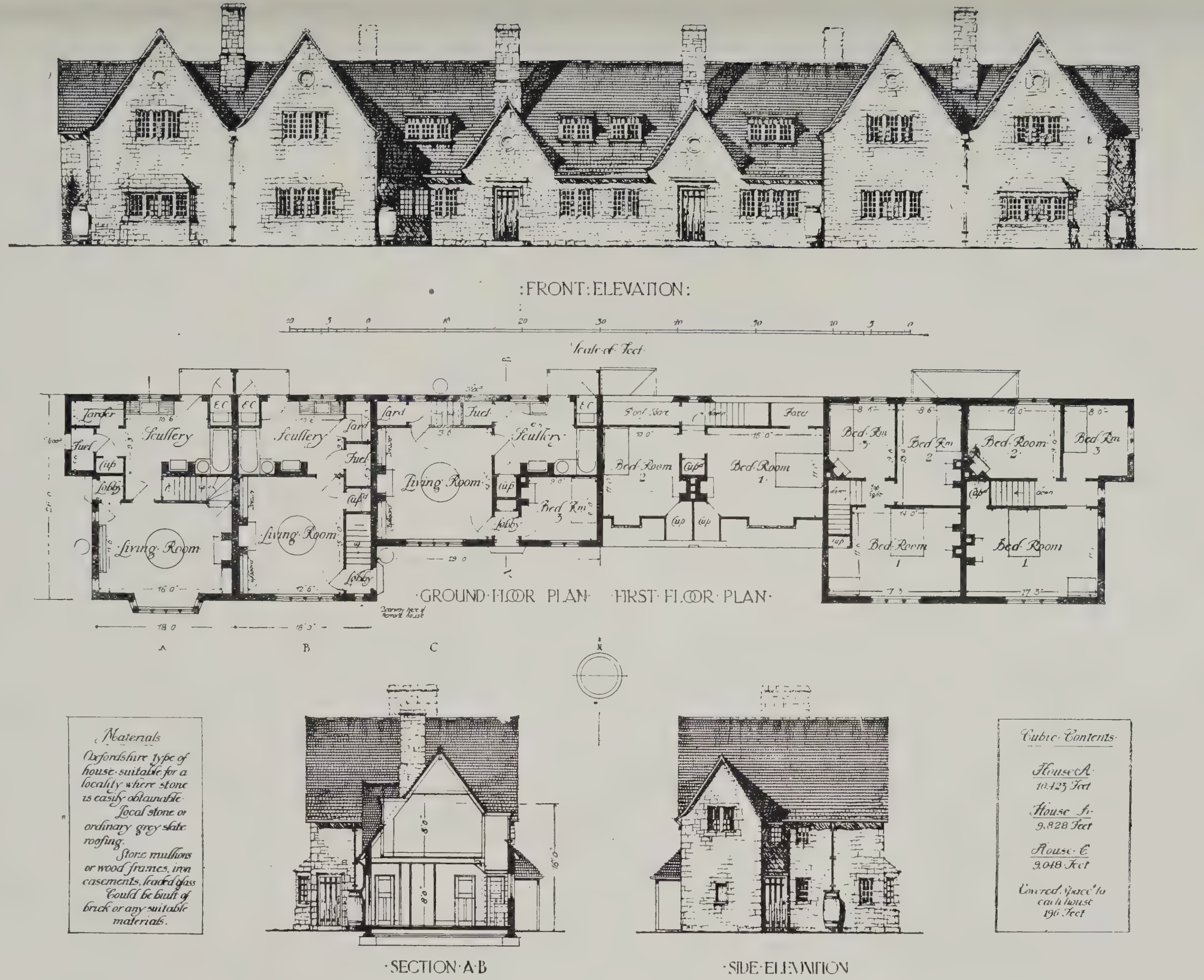
WALLS	11" HOLLOW BRICK OR WHERE THESE ARE UNOBTAINABLE HOLLOW CONCRETE SLAB WALLS (OUTER SLAB 3" INNER 2" TIED TOGETHER.)
FLOORS	GROUND FLOOR CONCRETE. 1ST FLOOR CONCRETE WITH HOLLOW CEMENT MOULDED TUBES SUCH AS THE SIEGWART OR KLEINE. THESE SAVE CENTERING AT PRESENT TIME OR REINFORCED FLOORS WITH STANDARD CENTERING.
FLOOR COVERING	ON THE SMOOTH CONCRETE A LAYER OF HAIR FELT & THEN LINOLEUM. THE ABOVE ASSUMES THAT TIMBER CANNOT BE OBTAINED
ROOF	HOME GROWN TIMBER & SLATE. FRENCH CORRUGATED TILES. RAFTERS & BATTENS ONLY WITH FELT UNDER BATTENS
EAVES	COVERED IN ASBESTOS SHEETS
HOODS TO ENTRANCES	SLATE SLABS
HOT WATER SUPPLY	K.O.B. SYSTEM WHICH ENABLES H.W. TO BE TAKEN TO THE FIRST FLOOR AT MINIMUM COST. NO CYLINDER IS NECESSARY
WINDOWS	CASEMENTS WITH COT BAR FOR UPPER PART TO OPEN TO ONE HALF. FRAMES OF TIMBER OR GRANITE CONCRETE.
PARTITIONS	BRICK & SLABS

CURRENT ARCHITECTURE (SERIES V.). IX.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): FIRST-PREMIATED DESIGN. CLASS A.

COURTENAY M. CRICKMER, F.R.I.B.A., ARCHITECT.



Materials

Oxfordshire type of house suitable for a locality where stone is easily obtainable. Local stone or ordinary grey slate roofing. Stone mullions or wood frames, iron casements, leaded glass. Could be built of brick or any suitable materials.

Cubic Contents

House A. 10.423 Feet

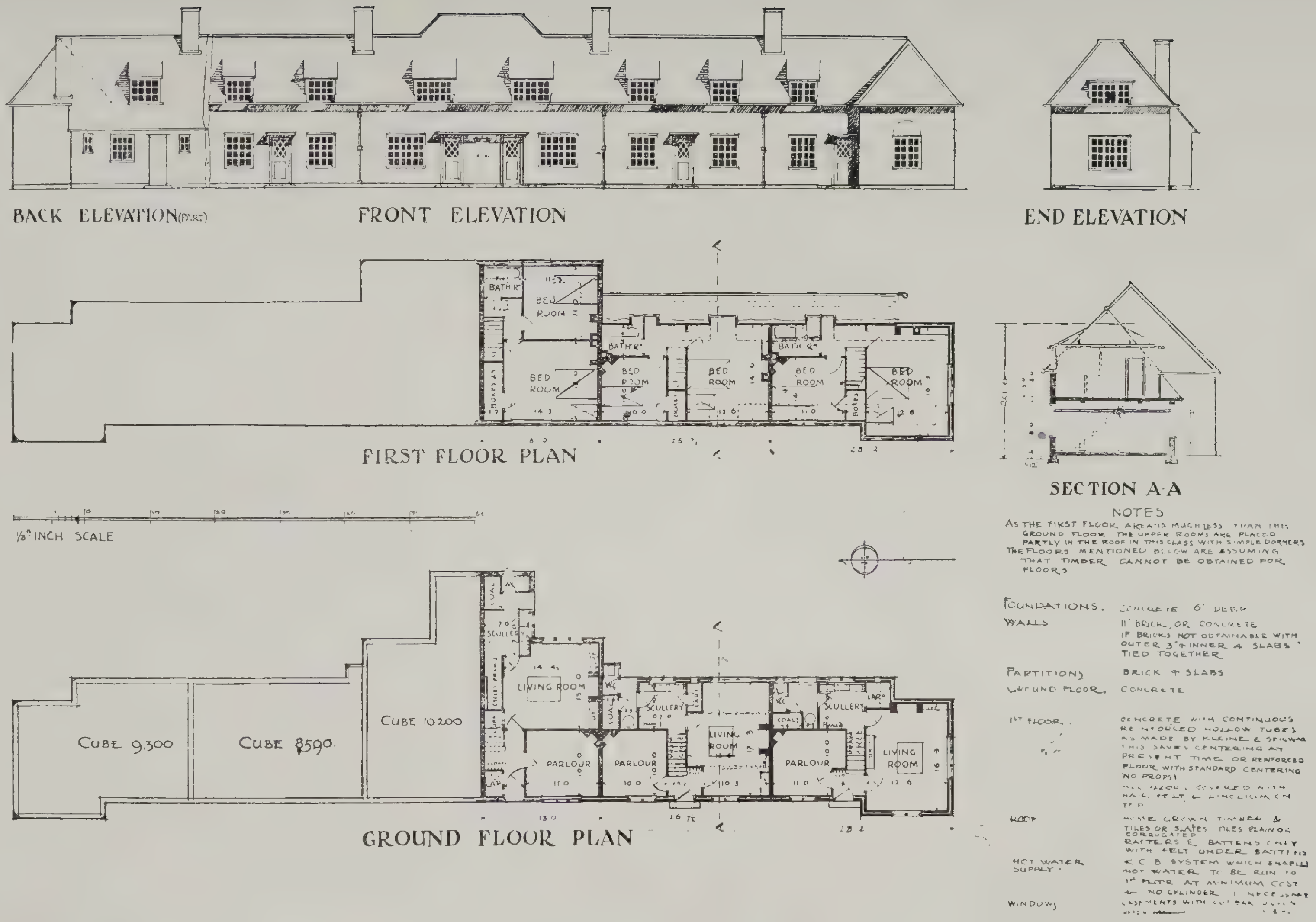
House B. 9.828 Feet

House C. 9.048 Feet

Covered space to each house 196 Feet

CURRENT ARCHITECTURE (SERIES V.). X.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): HON.-MENTION DESIGN, CLASS A.

C. WONTNER SMITH, F.R.I.B.A., ARCHITECT.



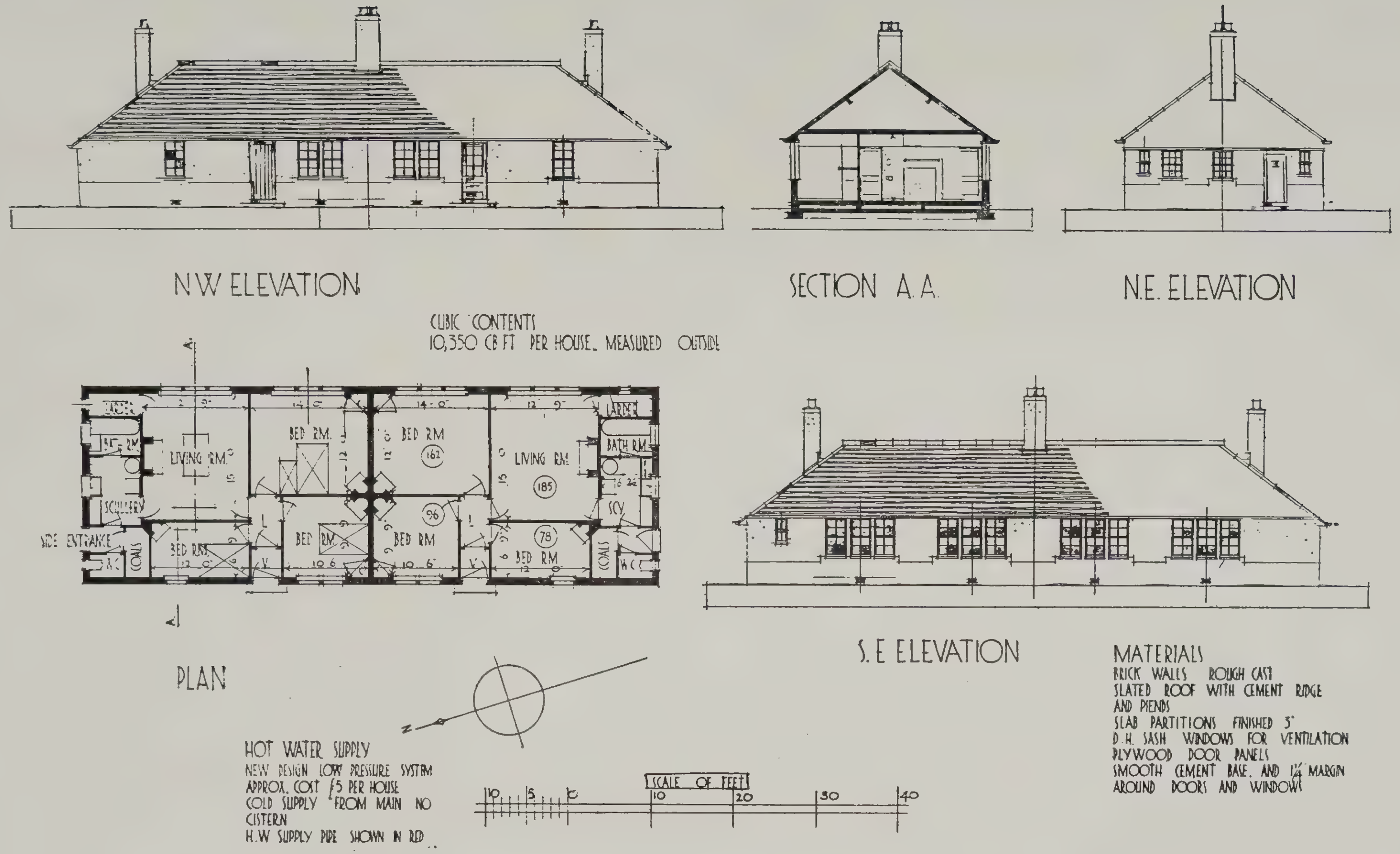
NOTES

AS THE FIRST FLOOR AREA IS MUCH LESS THAN THE GROUND FLOOR THE UPPER ROOMS ARE PLACED PARTLY IN THE ROOF IN THIS CLASS WITH SIMPLE DORMERS
THE FLOORS MENTIONED BELOW ARE ASSUMING THAT TIMBER CANNOT BE OBTAINED FOR FLOORS

FOUNDATIONS.	CONCRETE 6" DEEP
WALLS	11" BRICK, OR CONCRETE IF BRICKS NOT OBTAINABLE WITH OUTER 3" & INNER 4 SLABS TIED TOGETHER
PARTITIONS	BRICK & SLABS
GROUND FLOOR.	CONCRETE
1ST FLOOR.	CONCRETE WITH CONTINUOUS REINFORCED HOLLOW TUBES AS MADE BY KLEINE & SIEGWART THIS SAVES CENTERING AT PRESENT TIME OR REINFORCED FLOOR WITH STANDARD CENTERING (NO PROPS) ALL FLOORS COVERED WITH HAIR FELT & LINOLEUM ON TOP
ROOF	HOME GROWN TIMBER & TILES OR SLATES TILES PLAIN OR CORRUGATED RAFTERS & BATTENS ONLY WITH FELT UNDER BATTENS
HOT WATER SUPPLY.	K C B SYSTEM WHICH ENABLES HOT WATER TO BE RUN TO 1ST FLOOR AT MINIMUM COST & NO CYLINDER IS NECESSARY
WINDOWS	CASEMENTS WITH CUPBAR [illegible]

CURRENT ARCHITECTURE (SERIES V.). XI.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): FIRST-PREMIATED DESIGN, CLASS C.

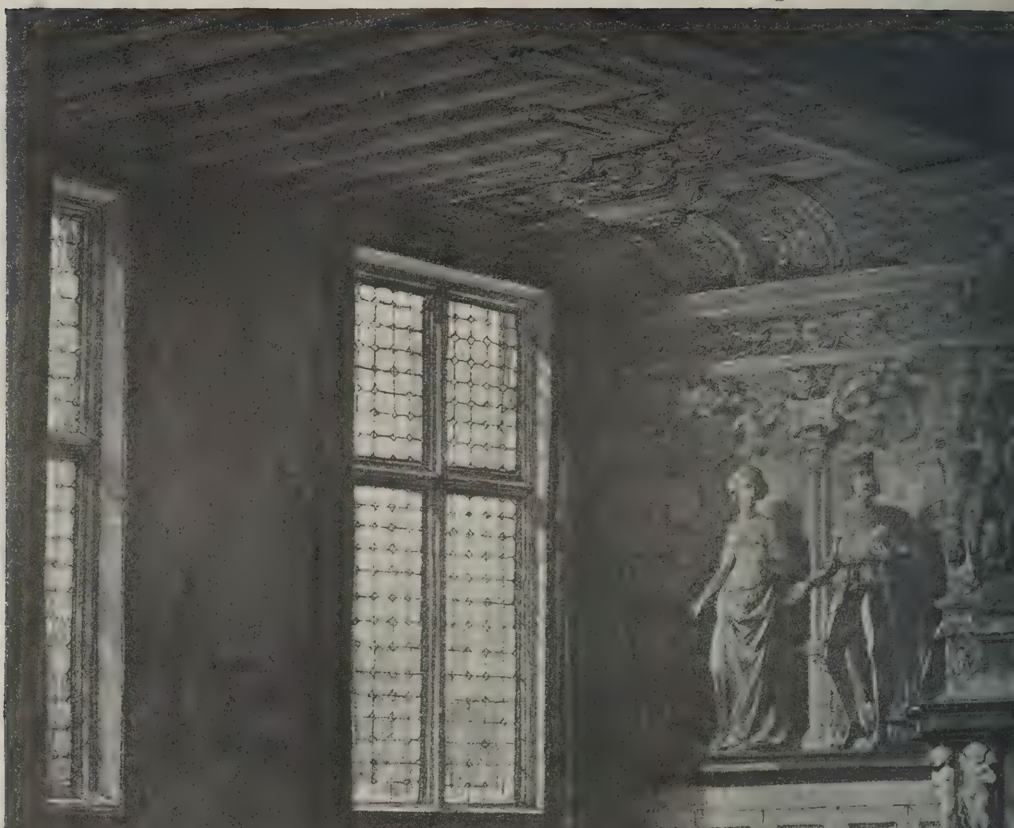
COURTENAY M. CRICKMER, F.R.I.B.A., ARCHITECT.


N.W. ELEVATION
SECTION A.A.
N.E. ELEVATION
CUBIC CONTENTS
10,350 CB FT PER HOUSE. MEASURED OUTSIDE
LARDER
BATH RM
LIVING RM
SCULLERY
SIDE ENTRANCE
COALS
W.C.
BED RM
162
185
96
78
SCY
PLAN
S.E. ELEVATION
N
HOT WATER SUPPLY
NEW DESIGN LOW PRESSURE SYSTEM
APPROX. COST £5 PER HOUSE
COLD SUPPLY FROM MAIN NO CISTERN
H.W SUPPLY PIPE SHOWN IN RED
SCALE OF FEET
10 5 0 10 20 30 40
MATERIALS
BRICK WALLS ROUGH CAST
SLATED ROOF WITH CEMENT RIDGE AND PIENDS
SLAB PARTITIONS FINISHED 3"
D.H. SASH WINDOWS FOR VENTILATION
PLYWOOD DOOR PANELS
SMOOTH CEMENT BASE, AND 1¼" MARGIN AROUND DOORS AND WINDOWS

CURRENT ARCHITECTURE (SERIES V.). XII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (HOME COUNTIES AREA): FIRST-PREMIATED DESIGN, CLASS D.

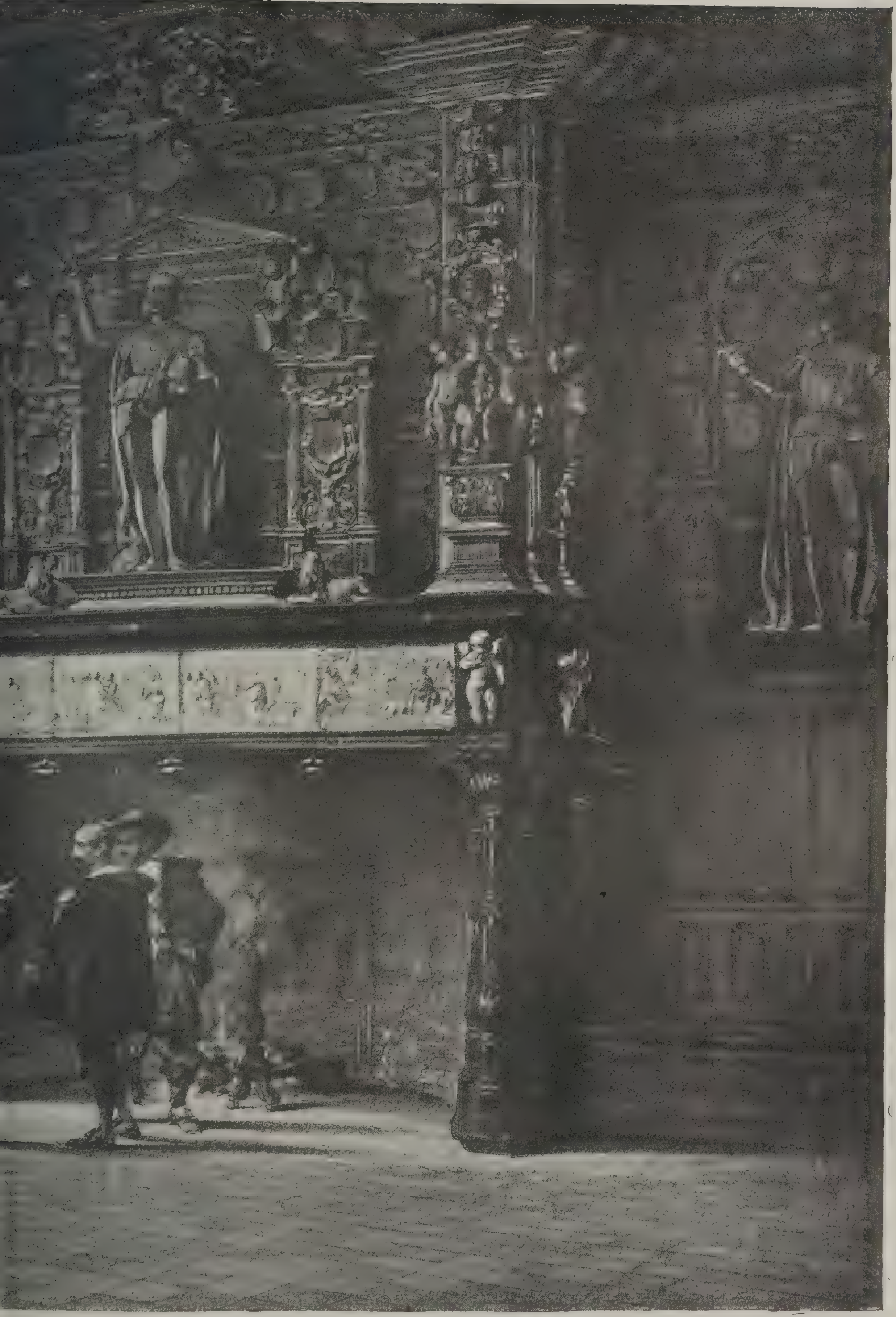
JOHN A. W. GRANT, ARCHITECT.

ARB



ARCHITECTURAL DRAWINGS AND SKETCHES. XVI.—

(*From the Litho*



RATES' ROOM IN THE PALAIS DU FRANC, BRUGES.

Louis Haghe.)

THE ARCHITECTS' AND BUILDERS' JOURNAL.

MAY 8, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1218.

NATIONAL PAPER ECONOMY.

)wing to the very necessary Government restric- ns on paper supplies, all elements of waste must rigorously excluded. Our readers, we are sure, l gladly assist in promoting this object, which is item in national economy. They can co-operate h us effectually in either of two ways—(1) By cing a direct subscription for this Journal, or (2) placing with a newsagent an order for its regular ivery. Casual purchases—now here, now there— ıte a serious discrepancy between supply and nand, and cause wastage of effort and materials.

HIS year's Royal Academy Exhibition, which was opened to the public last Monday, and will close on Saturday, August 10, is rather able, for such as delight in round figures, as the hundred and fiftieth of its kind, the Academy ing been instituted in the year 1768, with Sir hua Reynolds as its first president. The list of sidents falls just short of a dozen. Reynolds gned until 1792, when Benjamin West was elected. 1805, J. Wyatt temporarily succeeded him, and est resumed office next year, and held it until o, when Sir Thomas Lawrence was elected and ed for ten years. The succession then was: Sir A. Shee, 1830—1850; Sir C. L. Eastlake, 1850– 5; Sir F. Grant, 1866—1878; Lord Leighton 8—1896; Sir J. E. Millais, 1896. Sir Edward J. nter—long may he reign!—has been president two-and-twenty years, a period only exceeded by st's interrupted tenure of twenty-seven years; le Millais, alas! did not survive his first year of e. It is recorded in that admirable annual, "The r's Art," that the first exhibition was held in l Mall, but in 1771 King George III. granted rters in his palace at Somerset House, where the demy was housed until 1837, when it was alloted e in the National Gallery. As a result of the rt of the R.A. Royal Commission, the Govern- t granted a lease of Old Burlington House and garden beyond for nine hundred and ninety-nine rs at a peppercorn rent, and then the Academy t, in the 'sixties, its present home, at a cost of o,000.

* * * *

hat of the current exhibition? There is a slight ine on last year's numbers—1,622 as against ı—and one rather suspects a corresponding ine in quality; prolificacy being a manifestation natural force that influences quality as well as ber. One's first impression of the exhibition as hole is that it is of fair average merit, rich (as l) in portraiture, good in landscape, rather dull unimaginative in figure subjects. It is mainly ndscape that any indications of new tendency are discerned. Landscape per se, with hill and vale, le and dell, tree and bush, pool and brook, as ctive studies, seems to be yielding place to a d type of picture in which scenery is sub- nated to human interest, without, however, in- ng on personal incident to a degree that would titute a "figure subject." Withal there is more dth and freedom, more obtrusion of the fore- nd, and less care for perspective effects. There so, it would seem, a fresh outbreak of the still-life craze—flowers and fruits massed together to show the artist's dexterity in colouring or in brushwork. It is no doubt a useful exercise for students, but most of us prefer our melons and marrows, our pansies and daisies *au naturel.* "As large as life, and twice as natural," is a showman's appeal to a public that has more admiration for cleverness than for art; and one fears that a recrudescence of the flower-and-fruit painting will be followed in due course by a revival of the wax fruit and woollen flower folly of the days of our great-grandams. For the meagreness of the architectural department no apology need be offered: it stands excused by the present position of the architect; and the observation holds good for the sculpture, which obviously suffers from the absence of architectural stimulus. As a whole, the exhibition conveys the impression that for the moment art is marking time, with no very definite indication of the new directions it will take when the world is re-constituted and the map of life, as well as the map of Europe, is re-adjusted.

* * * *

A Swiss Sample Fair (Foire Suisse d'Echantillons), which was held at Bâle last week, and included, in the twelve groups into which the exhibition was classified, materials of construction, furniture, lighting and heating, sanitary installations, and electrical appliances, was remarkable for the rigour with which its entirely national character was maintained. That is to say, only Swiss firms were allowed to exhibit, and only goods made in Switzerland were admitted. Foreign visitors, however, were not excluded, but were specially invited to attend and purchase; the avowed aim being to promote Swiss industries by showing the world what they can do. In the prospectus, great stress was laid on quality, and exhibits "distinguished by the greatest possible perfection of form, material, and execution," were specially requested. One or two points in the management of the fair may be usefully noted. The exhibition was open from eight in the morning until seven in the evening, except on Sunday, when the opening hour was ten. Business visitors (*les achateurs*) were admitted from eight till two, but the general public were excluded until two o'clock, to give an opportunity for uninterrupted business; special tickets of admission being provided for circulation by exhibitors among their clients—a practice that is of course familiar at British exhibitions, such as that of the building trades, where, however, there is no necessity to restrict the attendance of the general public, the visitors, with negligible exceptions, going there with an eye to business. Apparently the thrifty Swiss attend business exhibitions for pleasure. If that is so, the Swiss public is more level-headed than the British, which, of late years, has seemed incapable of finding any interest in things that matter. They preferred something exciting, in which bets could be made on an immediate and ascertainable issue. It may be that they will come back from the war sated with excitement, and more kindly disposed towards forms of recreation that have in them something of practical value. They might even take pleasure in respectable architecture. Who knows? Last year this Swiss Sample Fair, which was then held for the first time, attracted 30,000 visitors.

* * * *

An article in the "Manchester City News" bears the rather questionable title, "No Bricks, no Houses." In the Manchester district, we are reminded, brickworks are numerous, and most of them have had to close down. Thus, it is declared, is not only disastrous to the trade, but is a national calamity. In particular it will cripple the Government housing scheme, on the assumption that if you cannot get bricks you cannot build houses. That, of course, is an exaggeration that the advocates of concrete cottages could easily refute. Concrete block-making machines produce with great rapidity an excellent substitute for bricks, and the architectural character with which concrete cottages are being invested has already done much to dissipate the prejudice with which new methods and materials are always opposed. Nevertheless brickwork has the sanction of hoary antiquity; and although there may be no substantial reason why we should go on building with materials that were familiar to the Pharaohs, provided that manifestly superior substitutes are available, yet sentiment and tradition would ensure the brick a renewed long lease of service even if it were outclassed—as nobody pretends that it is—in the cardinal virtues of economy, appearance, and hygienic quality.

* * * *

Brickmakers, however, must in future reckon with increasing rivalry from the maker of concrete blocks, and will therefore be compelled to show more enterprise in the conduct of their business. Like the slate-quarriers, who have complained bitterly of the preference given to newer roofing materials, they neglect to keep themselves in evidence through the ordinary channels of publicity, and, sooner or later, they will pay a heavy penalty for allowing their enterprising rivals to get ahead of them. It must be acknowledged, however, that the Manchester writer is fully justified in calling atttention to the hard case of the brickmakers, and to the ill effects it must have on housing. In ordaining that no building work costing more than £500 should be allowed without licence, the Government virtually extinguished the demand for bricks. Consequently, the brickworks had to close down, and in many instances the plant and machinery had to be scrapped because it did not earn its rent—became a source of loss instead of profit. A further consequence, the Manchester writer declares, is that building yards have been dismantled and shut because of the impossibility of getting bricks now and of the probability that hereafter the old sources of supply upon which they were dependent will not be available. For them, the last brick will be the last straw. Upon such accidents the fate of industries depends. It is suggested by the Manchester writer that the Government should go a step farther—commandeer the brickyards and hold them in trust for the brickmaker until after the war. This should certainly be done, or the Government housing scheme will be greatly hampered for want of a due tale of bricks, accentuated by the fact that the machinery for producing them will also be sadly to seek.

* * * *

A memorandum issued recently by the Ministry of Reconstruction states that while a large number of joint standing industrial councils, consisting of equal numbers of representatives of associations of employers and of trade unions, are already in process of formation (the Building Trades Parliament may be cited as an example), in certain industries progress in this direction has been slow. Pending the establishment of industrial councils, the Ministry of Reconstruction has undertaken, in association with the Board of Trade and Ministry of Labour, to promote the formation of interim industrial reconstruction committees constituted similarly to the councils. What form these organisations should take must depend, it is stated, on the circumstances of each industry, and their functions also are to be
left open. It is not intended that the comm
should confine themselves to the considerati
subjects specially referred to them by a Govern
Department ; it is hoped that they will exer
large initiative in devising means by which the t
tion from war to peace conditions may be
smoothly effected, and the way opened to the
restoration of industrial enterprise. We shall
next week to this Memorandum, which is, of cou
direct outcome of the Whitley Report.

* * * *

On the House of Commons going into Comm
of Supply last Thursday, Mr. Hayes Fisher, as
dent of the Local Government Board, took
opportunity afforded by the vote of £543,98
salaries and expenses of the Board to explai
present position of the national housing sc
His speech amounted to but little more than a re
tion of his former utterances on the same subjec
a recapitulation of proposals that are already fa
The local authority was to select its land, thoug
necessarily for immediate acquisition, and to
estimates of the probable cost of erecting house
of the probable rents over a period of seven
Then 75 per cent. of the estimated
would be found by the Treasury, leaving 2
cent. to be borne by the ratepayers, whom it
cost in the main, he supposed, not more than a
rate, but where, in special circumstances, it amo
to more the Treasury would meet the add
charge. A committee, he said, of which h
chairman, was carefully considering the case
private builder. He hinted the possibility of
being given in the form of a loan at the curren
with facilities for procuring timber and standa
materials. Public utility societies and p
builders, who expected a profit, he said, could
dealt with on the same terms as local authoritie
expected a loss. In other words, business me
not be accorded State aid or rate aid towards a b
on the right side of the ledger. It is assumed,
rently, that while local authorities are expec
build at a loss, private adventurers may be trus
realise a profit. This valuable admission wou
more warmly esteemed by the private builder b
his perception that it implies his being heavily
capped for his skill and experience, while his mu
competitors need not worry about losses, whic
be made up from Government grants and local

* * * *

This is no doubt an extreme view; but Mr.
Fisher's pronouncement certainly wears the
plexion that we have given it, and we shall be
surprised if private builders do not forthwith d
to be put upon level terms with the local auth
with respect both to borrowing powers and gua
against unavoidable losses. Would it not be p
to establish some system of building banks,
which private builders might, and local auth
must, borrow the funds for housing? Neithe
system nor, so far as we can see, any other
that can be devised—except, perhaps, that whi
been so ingeniously worked out by Mr. Edwa
Gibbs, who suggests house-duty on houses und
a year, chargeable to the owner and rechargea
the tenants—would place private builders or
societies on an equal footing with local authoriti
can always fall back on the rates. It does no
to be fully realised by the promoters of the G
ment scheme that the position of the private b
is of vital importance. With his co-operation, s
is assured. With his opposition or eliminatio
scheme is likely to become an ignominious f
We would therefore urge the Local Gover
Board to go into this matter very thoroughl
with the least possible delay.

ARCHITECTURE AND SCULPTURE AT THE ROYAL ACADEMY.

) far as architecture is concerned, the Royal
Academy Exhibition, which opened on Monday
last, is a distinct advance on that of 1917. Not
there is anything particularly fine or striking
it the exhibits; in the midst of war (this is the
th war-time Academy), and with architecture at a
l standstill, to look for brilliant new achievements
ld be just about as reasonable as to expect prim-
s and daffodils to bloom in winter. The improve-
t noticed is due to three things: First, a smaller
ber of exhibits; secondly, a better selection, and
lly, a happier scheme of grouping and arrange-
t. Drawings and photographs are present in about
l numbers; and, although they are still intermixed,
incongruity is by no means so noticeable as it was
year. Of course, we still have the old anomaly of
e pictures of small subjects and small pictures of
e ones. There is something supremely absurd
it a huge drawing of a simple little cottage and an
gnificant photograph of a vast building—particu-
if the two happen to be hung in close proximity.
t is the invariable fault of the Architectural Room
ere is no sense of proportion about it; and, so long
pictures are selected largely because they fit
eniently into a given space, there never will be.
Academy ought really to insist on the size of
ings and photographs being regulated with some
of regard for the importance (or lack of it) of the
 represented. Also, they might confine the by
neans superabundant wall surface of the Archi-
ıral Room to strictly architectural subjects.
gns for book-plates, embroidery, and illuminated
ns, although in a certain limited sense architec-
, might well be excluded from the room. Some
eral rule for frames should also be laid down; the
mingling of black, gilt, and plain wood is unhappy
e extreme.

his is the heyday of the veteran; so we must not
irprised to meet old friends at every turn. Some
ne subjects on view, it must be confessed, are
nning to show signs of advanced age; here and
 we have a distinct suggestion of the sere and
w leaf. One imagines the secret delight of these
s of the old brigade" on finding themselves
bished up and set out on view in the 1918
lemy. How well they remember their first appear-
there ten, twenty—how many years ago? For
is, however, we are glad to see them again. They
rallied nobly to the task of keeping the home
burning.

ne amount of space at our disposal being strictly
ed, we regret that we cannot give more than a
e general outline of the contents of the exhibition.
rence to many excellent works is unavoidably
ed. First we notice two splendid photographs
r Aston Webb's new front to Buckingham Palace
 and 1377), one (obviously taken before the war,
ise of the absence of the temporary buildings
 now disfigure St. James's Park) looking across
ake, with the façade of the Palace showing
d masses of foliage; and the other comparatively
up, with the ornamental piers and balustrades
e encircling formal lay-out in the foreground.
is unquestionably Sir Aston's *chef-d'œuvre*, and
hotographs do it complete justice. Among Sir
's other exhibits are a photograph of his excel-
Grand Trunk Railway Offices in Cockspur Street
), and interesting designs for war memorials at
Leys School, Cambridge (1297), and Christ's
ital, Horsham (1306).

. Reginald Blomfield shows two fine photographs
eral view and detail) of his universally admired
ed Universities Club, Suffolk Street, Pall Mall
(1375 and 1381), and in the domestic section he has two photographic views of the rebuilt Waldershare Park, Kent (1398 and 1406)—an interesting essay in the Palladian manner. Messrs. A. M. M. and A. G. R. Mackenzie exhibit an effective photograph (touched up rather deftly by Mr. Raffles Davison) of their great new building, "Australia House," in the Strand (1372), St. Clement Danes and the Law Courts providing a fine architectural background. A half-inch scale model of the upper part of the same building (1372) is also on view. Mr. Arthur Blomfield has a perspective drawing of his bank premises now in course of erection at the corner of Pall Mall and the Haymarket (1373)—a plain and unpretentious design somewhat marred by pyramidal corner features and a central turret on the roof ridge. Scant justice is done to the Cunard Building, Liverpool, by the very dull photograph (1383) shown by Messrs. Willink and Thicknesse and Mewès and Davis.

We cannot profess to admire Sir T. G. Jackson's Physiological Laboratory, Cambridge (1369)—a futile mixture of undeveloped styles in brick and stone; nor can we arouse much enthusiasm over Professor Beresford Pite's remarkably scratchy pen-and-ink drawing of the porch to his Insurance Offices in Euston Road. Professor Pite could have given us something much better than this. Mr. Arthur T. Bolton shows a brilliant water-colour perspective drawing of his shipping offices in Cockspur Street (1386). The fine elevational detail of Mr. Frank T. Verity's building at 193-197, Regent Street (1361), is the only drawing of its kind in the exhibition. The practice of showing architectural details of this sort should be encouraged, for it gives members of the general public an instructive insight into the manner in which the buildings they see about them are created. Typical examples of modern city elevations—plain and restrained, yet withal eminently suited to their purpose—are seen in the photographs of H.M. Stationery Office Warehouse, Stamford Street (1362), R. T. Allison, architect, and the façade of a bank in St. Mary Axe (1363), Fredk. Hall-Jones, architect.

Mr. W. D. Caröe has a large perspective drawing of a suggested War Memorial Bridge of Empire at Charing Cross (1387), to replace the present railway bridge. It is of five arches, the middle one having its footways colonnaded and covered in. It would perhaps have been better to continue this treatment the whole length of the bridge or else omit it altogether. Mr. Caröe overcomes the difficulty of the embankment tramways by making them dive below the surface of the road. Mr. Mawson exhibits below this drawing a plan showing his scheme for the replanning of Salonika (1388). No. 1323 is called "A London Open Space" in the catalogue, and "The Rostrum" by the artist, Mr. Robert Atkinson. Its dominant tone of yellow does not exactly convey the London atmosphere, nor do the draped figures, dimly flitting across the foreground and to the right, bear much resemblance to Londoners. Architectural monuments however, set in formal surroundings such as these, are badly needed in London, so Mr. Atkinson's essay is none the less welcome. Sir Hamo Thornycroft's monument to Lord Curzon, at Calcutta (1312), is well composed, and the architectural detail has the uncommon merit among sculptors' memorials of being quite excellent.

Ecclesiastical architecture is well represented. Sir Edwin Lutyens has a water-colour perspective (apparently by Mr. Walcot) of a rather remarkable church to be erected as a war memorial at Basildon, Berks (1324). Plain to the point of bleakness, the church, conceived in a style of Romanesque, has a fine impressive aspect, enhanced by a great west tower and a small dome at the crossing of nave and transepts. The drawing is a remarkably interesting piece of work, claiming attention by its unusual but highly effective technique (notably in the rendering of the shadows), and by the use of minute scratches on the surface of the paper to represent bricks. Sir Robert Lorimer shows a series of photographic views of his wonderful work in the Thistle Chapel, St. Giles's Cathedral, Edinburgh (1337), and of the choir, choir stall, organ-case, and east-end screen in Dunblane Cathedral (1352), surely some of the most exquisite Gothic carving of modern times.

Mr. Temple Moore exhibits two interior views of All Saints' Church, Basingstoke (1344)—a building instinct with that fascinating interest which Mr. Moore knows so supremely well how to impart. The Gothic work shown by Mr. John S. Adler (1329, 1330, 1347) has a distinct intellectual quality—clear, cold, and crisp. Indian character is deftly mingled with Decorated Gothic in the Wesleyan Church at Medak, India (1336), the western front of which is shown in an elevational drawing by Messrs. Bradshaw, Gass, and Hope. Nos. 1331 and 1334 are good examples of Mr. G. H. Fellowes-Prynne's distinctive mode, the woodwork shown being as graceful as it is elaborate.

Several leading domestic architects, Mr. Ernest Newton, Mr. E. Guy Dawber, Mr. Walter Cave, Mr. H. M. Fletcher, Mr. Baillie Scott, and others, are represented, mostly by work that, although perfectly familiar, comes fresh to the eye on its reappearance. Mr. Walter H. Brierley exhibits photographs of some singularly unequal work at Sledmere Hall, East Yorks. In this one house we have a wide diversity of treatment, recalling both the dull heaviness of Sir John Vanbrugh and the delicate refinement of Robert Adam.

Architectural interest is to be found in a good proportion of the canvases in the general part of the exhibition, but we have no space to enumerate them here. Attention should be drawn, however, to a beautiful water-colour of Trinity College, Cambridge, by Mr. Walcot (737), and to two delightful water-colours (850 and 857)—one of Wells and one of Peterborough—by Sir Ernest George, hidden away at the back of the screen in one of the south rooms.

THE SCULPTURE GALLERIES.

Of the many ways of reporting upon a Royal Academy Exhibition, probably the very worst was that of scampering round to see what the great men had contributed, and to take it for granted that the small fry and the unfamiliar names might be safely neglected. That fashion has fortunately died a natural death, and the practice now is to go round the show at the slow march, in full confidence that anything really worth notice will either make you "come smartly to the halt" or knock you down. This dynamic force, or radiant energy, or whatever you may choose to call it, is what makes a work of art "arresting."

Neither of these methods was adopted by the present writer, who paused reverently (more or less, as the occasion seemed to demand) and conscientiously before every exhibit in the sculpture galleries. This was a task of no great magnitude, for the sculptures are not overwhelmingly numerous; and, if the truth must be told, it made no great draught on one's reservoirs of admiration. There is no exhibit of which it could be said without risk of instant challenge that it is in the Grand Manner; except perhaps Mr. Gilbert Bayes's colossal statue of a knight on horseback, which, being too big to take inside, has been left in the courtyard. In this respect, at all events, it may be truthfully described as "an outstanding monument." Inside, the monumental groups are as the days and years of the patriarch—"few and evil." There i one of them of which one would care to say that more than respectable. Mr. T. Mewburn Cr model of a marble statue of Sir Thomas Picton is to be placed in the Cardiff City Hall strikes o being a good and true piece of portraiture, and attitude is singularly graceful and natural, the having obviously mastered the secret of overco the stiffness of stone—of animating his figure.

Another model of a statue destined for a p building is a convincing likeness of the late Derby, which has been shaped by Mr. F. W. Pom with all his wonted skill. It—or, rather, the stat be cut from it—will adorn a niche in St. George's Liverpool. Sir W. Goscombe John's model granite figures symbolising respectively "Air" "Water," for the Engine-room Heroes' Mem Liverpool, should not be judged independently parts they are to play in the composition of the plete work. Taken *per se*, they seem rather and inexpressive, but these may be studied "va for balancing a general effect.

Mr. Paul Montford, who must be a prodi worker, exhibits three more figures for the gro be placed on the Kelvingrove Bridge, Glasgow. remember to have commented on the statues in series which Mr. Montford exhibited last year th adopting "stock properties" to mark the identi his figures he was justified by the desirabilit making a thoroughly popular appeal, and the holds good for this year's continuation of the "Shipbuilding," a winsome woman, must needs a mallet in her right hand, the model of a galleon in her left, and about her there must be hawsers, eyes, or what not; but the unco' guid of Glasgov be glad that she has not "slipped her stays." is no doubt about the character of "War." He lethal weapons and grins horribly. "Industry" his sledge, his anvil, and other fixtures, fittings appurtenaces, the import whereof he who runs read. These figures are withal invested with and nobility, and in each instance the "props" exceedingly well composed.

Mr. Ernest G. Gillick's marble group, "Henry at Bosworth Field," Lord Rhondda's gift to C City, is perhaps a little stiff in the attitudes, but n theless strikes the right note of romance and chi

Mr. Derwent Wood's marble statue of William first Earl of Chatham, which is to be presented t United States by American women living in United Kingdom, "as a memorial of a hundred peace (1815-1915) between the two kindred na and as an expression of their love of the land of birth and the land of their adoption," does not id its subject. Pitt's keen, aquiline, rather com place features will hardly suggest to the Amer the brilliant master of statecraft and oratory, will his somewhat insignificant head convince that his reputation for scholarship was well dese What will impress them most will be Mr. Der Wood's consummate skill in the management o garments, which hang so naturally from the shoulders that one feels almost impelled to touch to assure oneself that they are not real textile fal but are actually cut in the stone. The much-wri and too-much-unbuttoned vest, is perhaps a littl realistic; but the cleverness of it all is well appalling, for it makes one fear lest Mr. Wo attaching overmuch importance to unessential ticulars.

Sir Thomas Brock's marble statue of Lord S ham, to be erected in Bombay, is rather meticul finished in the details of his lordship's decor addenda, but is otherwise unimpressive.

War memorials are naturally plentiful. Pos the nude statue called "Belgium," by Mr. T. Mew Crook, comes into this category. One feels th ght just as well have been called by any other name. attitude, the huddled figure, prostrate face down-rd, is a singularly poignant expression of the very ndonment to grief. Belgium is not quite taking it t way; and, as often happens when one is greatly ved, comic relief rushes to the rescue. In this ance a perverted quotation from Bret Harte makes smile through our tears: "Curled up on the floor: d the subsequent proceedings interested [her] no re": which is very far from being the attitude of gium. But the statue is a beautiful study of ection as expressed in limbs and body. "Outrage" kes a cheaper appeal—a nun comforting a despair- woman by pointing to a mutilated crucifix on a ned wall.

Ir. Bertram Mackennal's memorial to Captain Sir ink Rose, of the 10th Royal Hussars, who was ed in action in Belgium, shows a knight in armour niche between pillars; but to-day khaki is surely ufficient emblem of chivalry. Mr. Gilbert Bayes, ose knight in armour defies all comers in the quad-gle, makes atonement for this mediævalism by ing us, in his model of a presentation bronze, from Machine-gun Training Centre to the Earl Brown-, an exquisite figure of a modern soldier, and nonstrates that there is poetry in an overcoat, as ll as in the operation of a machine-gun.

n a bust of the late Nurse Cavell, which is to form t of a memorial to be erected at Norwich, Mr. H. gram has not only achieved faithful portraiture, but invested the face with the glory that exalts the oine: out of its strength cometh forth sweetness.

A war-memorial reredos, "The Entombment," by . W. Reynolds-Stephens, has for its central figure emi-recumbent Christ; an angel at his head, and other at his feet, filling the space above with their eading wings. The white figures have an architec-al setting of very dark-blue marble, and the whole it up by a small gilded panel of exactly right propor-ns, bearing the inscription, "The Gateway to e." The memorial is a serenely beautiful concep-n, such as might have occurred to an early Italian ster.

Ir. Bertram Mackennal's memorial to the Hon. n Manners, Lieut. 2nd Batt. Grenadier Guards, ed early in the war, is masterly in execution, and, ough it does not at first attract the eye, it soon tifies it.

Among the many minor memorials—tablets, small nzes, and the like, space will allow of mentioning y one—Mr. Alfred Drury's "Flight Sub-Lieut. rold Leslie Smith, R.N.A.S., killed in air-battle r Douai last May, at the age of nineteen." It is a file winsome in its boyish charm—frank, ingenuous, rless. "He is dead, the beautiful youth: the soul honour, the tongue of truth."

Among the busts, the best is Mr. A. Broadbent's obinson Ellis, Esq., M.A., late Corpus Professor of tin, Oxford." Surely the face and head of a ical scholar have never been more faithfully or re delicately rendered. Mr. W. Reynolds-phens, in his terra-cotta study of the head of Sir nes Yoxall, M.P., has done justice to the astute bland and kindly face of his subject; and the sthumous bust of the late Professor Edward nteri, by Mr. Charles Wheeler, is hardly less fortu-e in its portraiture, although there is less delicacy the touch. Mr. John Tweed's busts (a) of Sir Starr neson and (b) Lieut.-General the Right Hon. Jan Smuts are vigorously executed, but do not go eply into the interpretation of character.

There are many other sculptures that one would to notice did space allow; but it must for the nce suffice to call attention to no more than two— well-proportioned, decorous model of a bronze let erected to the memory of Thomas Gray on a ise built on the site of that in which the poet was born (Messrs. F. W. Pomeroy and Sydney Perks devised this very graceful tablet); and Mr. R. Anning Bell's coloured relief, "The Fortune Teller," which is perhaps the most beautiful, and is certainly the most individual exhibit in the sculpture galleries. The two women—one dark, the other fair; one worldly and cunning, the other simple and credulous—stand out in gold from a subdued background with exquisitely decorative effect.

On the whole, the sculpture galleries, though but meagrely filled, have in them enough of high average interest to induce one to linger there. Imagination and fancy are not absent, but clever craftsmanship is more in evidence. For higher inspiration from the great war we must await the return of the men who have seen and suffered and know.

THE PLATES.

First Church of Christ, Scientist, Edinburgh.

THE site of these buildings lies to the south of Inverleith Terrace, opposite the Botanic Gardens, and covers some two acres. It has been laid out with terraces and walks, connected by broad flights of stone steps, and in grass lawns surrounded by trees. Owing to the fall in the ground the church is planned in two storeys. The hall is seated for 518 persons, and measures 50 ft. wide by 74 ft. long. It is covered by a lofty barrel-vaulted ceiling and is lighted by five semicircular-arched windows on each side. The gallery at the north end is seated for 118 persons, the total accommodation thus being 636. The general architecture of the building is founded on the fourteenth century work of Scotland, but this tradition has been used with the utmost freedom, and has been adapted to the needs of modern construction and convenience. The total cost of the building, including furnishings and fittings and laying out of the grounds, was approximately £11,300. Mr. Ramsay Traquair, A.R.I.B.A., of Edinburgh, was the architect.

Amiens Cathedral.

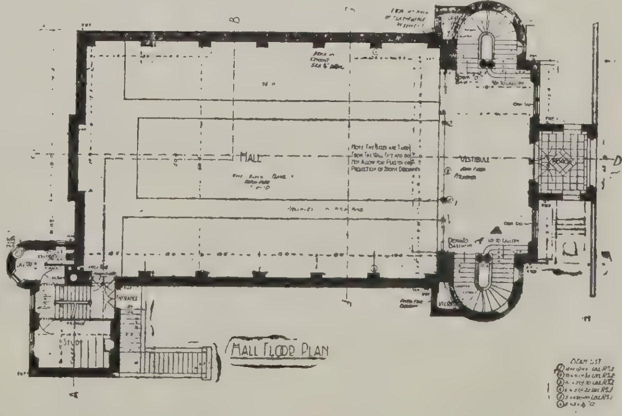
A few notes on Amiens Cathedral, together with some small snapshots, are given on page 213.

Chimneypiece in the Town Hall, Courtrai.

The chimneypiece in the Council room of the Town Hall, shown in this lithograph of Louis Haghe's, dates from 1527. The upper part is of oak, sculptured with figures. The remainder is of stone, with carved panels of the Deadly Sins and the Life of Faith.

The Column of Trajan, Rome.

The Column of Trajan was erected A.D. 114. It is of Roman Doric, and stood in a court beyond the Delphian Basilica.



FIRST CHURCH OF CHRIST, SCIENTIST, EDINBURGH: PLAN.

THE NEW SPIRIT IN INDUSTRY.

BY PROFESSOR C. H REILLY, M.A., F.R.I.B.A.

(Concluded from page 201, *No.* 1217.*)*

THE fundamental fault of the complete Syndicalist theory seems to be that of the three factors which go to make up the economic balance, (1) the interests of the consumer, (2) the interests of the capitalist or of his heir the State; and (3) the interests of the producer—the last outweighs the whole. It is a new danger. We are more accustomed to the dangers of uncontrolled capitalism or of the uncontrolled appetites of the consumer, but this new menace is obviously an equally real one.

If, however, the complete Syndicalist or Guild Socialist theory seems to work out like this in its final shape, that does not prevent, especially in a country of compromise like our own, many useful ideas and readjustments of view being gained from it. Such ideas also would not be merely palliative in character. If adopted at all, they would represent a fundamental change in the relations of employer and employed—a change, too, admitting the possibility of future growth. This growth would obviously be in the direction of abolishing the distinction between the two classes. Both employer and employed would be considered in their relative aspects to one another as servants of the community, and their emoluments, beyond a fixed minimum, would be ultimately measured by the human cost in brain, nerve, and muscle expended. The term working-classes would therefore tend to include the whole population. On the other hand, proposals like Lord Leverhulme's for reducing the working hours to six a day and for profit-sharing with no share in the control, do not really go to the heart of the matter. As temporary expedients they are invaluable, but they do not change either the character of the work or the spirit in which it is demanded. It may even be argued that the shortening of the hours to six is an admission that the work as done during those hours is such that the full human endeavour of the workman considered as a man, cannot be put into it. Work so conceived is a treadmill exercise to be got through as quickly as possible. The real life-work lies outside it—in the allotment garden or beerhouse, according to circumstances. That is no solution, therefore, of the essential difficulty. Charles Lamb working at the India Office does not represent a sufficiently prevalent type, otherwise a system might be evolved by which everyone was made to share for an hour or two a day in the necessary drudgeries.

Granting, however, that the factory system has come to stay—and everything points to its intensification in the future rather than otherwise—the essential thing is to bend it to our needs, and not to allow the nation to be crippled by it. The aim, therefore, of the trades unions to control it in the interests of those who work it is a just one. Manufacturers are already being asked by the Government to combine and pool their trade secrets. Raw materials are to be bought in bulk, and competition is so far to be eliminated. It is but a step further to apply the same principles to engaging labour. Minimum rates should be fixed for each trade, and the maximum guarantee of employment after suitable trial should be given. Each trade, too, should be responsible for its pool of unemployed. It has never been clear to me how faithful and intelligent service can be expected from a man who, though he may be employed by one firm all his life, is only legally engaged from hour to hour. Complaint is often made of broken agreements by trade unionists, but is not every such agreement vitiated for the individual worker, by
knowledge that, as far as he himself is concern
unless he can bring the outside pressure of his ur
to bear, his employment only lasts as long as
employer finds it convenient to employ him?

It came to me as rather a shock when first act
as an employer during the war to find that abse
through ill-health is not covered by wages, the t
lost being deducted in the case of all but the cler
and salaried staff. It is not the business, and i
often not to the interest of the employer, to find
employees continuous work, as was the case in
days of serfdom and slavery. Indeed, in resp
to continuous employment, livelihood, and many
the lesser amenities of life, it is obvious that
slave was in a better position than the present
labourer, who is only employed from hour to hou

Further, as the factory or shop is necessaril
community, it seems reasonable to suggest
everything possible should be done to foster
community spirit. Community of interests can
however, have any real basis when a fluctuating
substantial proportion of the results of the gen
labour goes to an alien body of shareholders.
system of taxing excess profits above a fixed le
which the war has introduced, seems, therefore
be a wise one, and it is of interest to note that
new programme of the Labour Party includes
retention. One result would probably be
increase in the share which management would t
in the proceeds. As is happening now, while
curious feeling prevails that patriotism demands
sacrifice of life but not of business, everyth
would probably be done to avoid surrende
excess profits to the State. This, however, wo
not be so serious a matter if labour and mana
ment were gradually to coalesce. The m
obstacle to such coalescence is the lack of edu
tion. Everything comes back to that, and it
another proof of the wisdom of the new Lab
Party's programme that this is understood.
demand for greatly increased scholarship facili
for Secondary and University education is a pro
concomitant to the demand for a greater share
the control of manufacture. I am informed t
one good result already of the high wages wh
the war has brought about in Liverpool is a la
increase in the number of students in the Munic
Secondary Schools.

Supposing, however, we assume that by the ex
cise of general intelligence, democratic mana
ment, and the limitation of profits, we shall in t
have the single factory, working as a satisfied
happy unit, in which, on the whole, the best w
and interest is obtained from each indivic
worker, we are still faced with the problem of
third factor in any undertaking—the market. H
is that to be safeguarded and maintained? T
problem during the war has hardly been appare
The demand has always been in excess of
supply, although the demand itself has in a se
been an entirely fictitious one. It has, too, bee
demand of a special kind. It has been a Sta
regulated demand. The work has been apportio
to the factories according roughly to their powe
but in many cases beyond their wildest drea
The high rate of wages, the welfare arrangemen
and the other absurd fads of Government amate
have been accepted as necessary and minor ev
corresponding to the commissions paid for ord
in the piping times of peace. The question, the

re, is, will the State, which, during the war has
een the great buyer of every sort of product, still
mmand the market or any part of it? If the
ate continues to do this, the conditions of labour
so can be controlled. The welfare fads will have
stay, and perhaps also the high wages. It is
ear that, for some time to come, owing to the
ortage of ships and to such necessary reparations
war as the filling up of the gaps in housing, the
port of raw material and many other things will
main controlled.

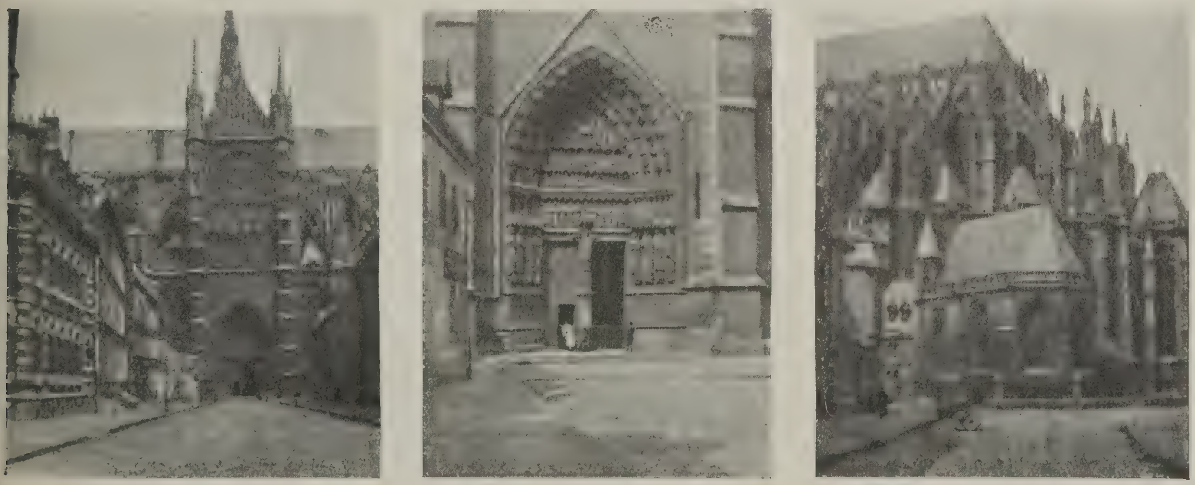
It cannot be left to the exigencies of the open
arket to determine the order of precedence. Manu-
cturing firms, therefore, will to a certain extent be
ntrolled also. The war has established the futility
controlling a price at one end of a process and not
the other. It seems likely, therefore, especially if
e Labour Party comes into power, that the staple
ticles of home consumption and manufacture, such
food, boots, and clothes, will remain controlled.
e market and the price both being regulated, the
ctories where these things are made will be placed
the desired stable position. If that is the case the
tlook for conditions of employment is a good one.
is by these conditions, and not only by the price to
e consumer, that the success of the policy of Govern-
ent buying and selling must be measured. It might
en be worth while to pay a little more for boots
der the circumstances. We have often been asked
consider such a suggestion from the point of view
the shareholder's profits. It is then generally called
ariff Reform. We might now do it from the point
view of the workers. It could then be called
actory Reform—a much less popular title I fear.

With regard to export trade in standard articles,
ch as coal, heavy chemicals, and certain types of
tton goods, it is possible that similar control might
exercised. The Government is already establish-
g its trade commissioners to analyse the effective
port demand. From this it does not seem a great
ep to undertake the actual sale. The advantage
uld be in the further control of the manufacture at
me, which in the large quantities dealt with would
ean a further power to steady the market. Frankly,
seems to me that unless the State takes some such
finite steps to ensure to the workman a regular
mand for his labour, the old fear of intermittent
ployment, which during the war has largely disap-
ared, may return, and with it the desire to limit
tput and all the other admittedly bad and short-
ghted policies of the past. It must be remembered
at his muscle, brain, and skill represent the working-man's sole capital, and unless they are actively employed they bring in no interest.

Unemployment is therefore the controlling fear of his life. Remove that fear by any State action you like, and three-quarters of the industrial problem and seven-eighths of the social are, in my opinion, solved. Fully employed under conditions where freedom and growth are possible, the working-man may safely be left to find his own salvation. Labour will have ceased to be a commodity to be bought and sold. It will not in future be considered a thing apart from the man or woman who gives it. That is to say, in every case the labourer will be recognised as a human being entitled to the only rational relationship in work for human beings—namely, partnership. And if partnership is admitted as the aim, the wage system and all it stands for gradually disappears. It is not only a case of exit charity, but of exit time-work, piece-work, and all the other mean ways of measuring a man and his service.

AMIENS CATHEDRAL.

AMIENS being the centre of terrific and protracted fighting, in which it seems hardly possible that the cathedral will escape the fate of that at Reims, the accompanying snapshots of details, and the general view shown on one of the plates, assume a topical interest that is, alas, strongly stimulated by keen anxiety. Amiens Cathedral, like its contemporary at Reims, is dedicated to Notre Dame, and the plan is almost identical. Inside and out, both cathedrals are luxuriant in sculpture; and Viollet-le-Duc, who did much restoration work at Amiens, has called it "The Parthenon of Gothic Art." Its statues include not only separate figures of holy personages, prophets, saints, and martyrs, but group or panel compositions illustrating sacred subjects, such as the Last Judgment, as well as secular themes like the seasons and the labours of the months. The vast spaciousness of the church—it is the third largest cathedral in Europe—the extreme loftiness of the nave, and the unusually fine lighting of the interior provided by windows in the clerestory, immediately impress the visitor; and the contributor to whom we are indebted for the snapshots expresses the general effect rather happily in saying, "One hardly realises that in passing through the magnificent portal an enclosed interior has been entered; for there is no perceptible diminution of the broad daylight of the surrounding streets."



Entrance to South Transept. Detail of Entrance to South Transept. View of South-east Corner.

SOME SNAPSHOTS OF AMIENS CATHEDRAL.

(See also Supplementary Plate.)

R.I.B.A. ANNUAL REPORT.

(*Continued from page* 202, *No.* 1217.)

Architects and Government Departments.

Members will recall that when the National Service Scheme was first set on foot a deputation from the Institute waited upon the director and suggested ways in which the services of architects might be utilised for the benefit of the State; at the same time the entire organisation of the Institute and the services of architects were freely placed at the Government's disposal. The offer has been accepted in various ways, and the Council have the satisfaction to report that frequent reference has been made to them by Government Departments on questions connected with the building industry. Architects have also been appointed to positions in various Departments of the Government, notably at the Local Government Board, the Ministry of Munitions, the Ministry of Reconstruction, the Ministry of Works, the Board of Trade, and the Ministry of National Service. Mr. Ernest Newton, A.R.A., has been transferred to the Ministry of National Service, where he is in charge of the branch dealing with building licences. The president is also at the Ministry of National Service filling the position of Technical Adviser to the Building Section. Various inspectorships in connection with Mr. Newton's department are held by architects. On the nomination of the president at the request of the Local Government Board, Sir Aston Webb was appointed representative of the Institute on the Advisory Council set up by the Government to consider questions of building construction and methods of securing economy and dispatch in the building of working-class houses that will be needed after the war. Mr. H. D. Searles-Wood has been appointed Adviser to the Board of Trade on the Reconstruction of the Building Industry. On the application of the Local Government Board the President was appointed to give evidence before the Housing (Building Construction) Committee of that Department. The following have been appointed to represent the Institute and to give evidence at an inquiry conducted by the Building Materials Supply Committee of the Ministry of Reconstruction: The President, Mr. John W. Simpson, Mr. Paul Waterhouse. The following have been appointed to give evidence on building by-laws before a committee of Local Government Board: Professor Beresford Pite, Mr. S. Perkins Pick (Leicester), Mr. H. D. Searles-Wood, and Mr. W. R. Davidge.

War Time Employment for Architects.

The scheme of civic surveys has continued in operation during the year and provided employment for architects in the areas of Great London, South Lancashire (Liverpool and Manchester), and South Yorkshire (Leeds). The number of workers has diminished gradually throughout the year, in consequence of most of those who were engaged having found employment either in Government offices or elsewhere. There are now twenty-seven architects at work in the three areas. The services of the members of the Civic Survey of Greater London have been utilised to a considerable extent by the Air Board in executing tracings of aeroplane parts which were urgently needed for the speedy production of aeroplanes. Independently of the civic surveys a considerable number of appointments have been found for other applicants, and this work is still in progress. The Institute continues to provide accommodation and clerical assistance and to defray other expenses in connection with the War Committee and the Civic Surveys at a cost during the past year of £255. Representations were made to the Reconstruction Committee of the Board of Control that it would be of great assistance to asylum architects, whose work had been stopped, if the Board would pass the preliminary plans so that the working drawings for the erection and extension of asylums could be completed in readiness for the work of building immediately after the war. A sympathetic reply was received, and later the Institute was informed that the Board of Control had adopted the suggestion and had passed the plans of certain special buildings for the purpose desired.

A conference of representatives of the professional institutions of architects, surveyors, and builders has been called by the President to discuss problems relating to the reconstruction after the war of the professions and trades connected with architecture and building, a primary object being to assist the authorities in re-starting the building and kindred industries immediately peace is restored. Endeavour will be made to induce the Government to encourage employers to apply for the release, in advance of general demobilisation, of the managers and organisers of professional, commercial, and industrial concerns, so that they may reorganise the various businesses with which they were connected before the war and get them into an efficient state to deal promptly with the conditions that will obtain after the war. The conference is also pressing the desirability of an early relaxation of the present administrative restrictions on building and building materials.

Town-planning Schemes.

By the system of Press cuttings inaugurated last year at the suggestion of the Town Planning Committee the Council have received early intimation of every town-planning and improvement scheme in contemplation throughout the country, and a memorandum emphasising the need for efficient architectural advice has been at once sent from the Institute to the local authorities concerned. At the same time the Allied Society of the district has been communicated with in order that united effort may be made to secure the appointment of architects to collaborate with the municipal officials in the preparation of the scheme. It is satisfactory to state that the Council have received from municipal authorities many gratifying expressions of appreciation of the advice tendered them, and it may be confidently anticipated that in the future the claims of architects to act as expert advisers in matters of town development and improvement will become more and more generally recognised.

General Education and the Building Industry.

In view of the future educational policy of the Government, as foreshadowed in Mr. Fisher's statement in the House of Commons last summer, a memorial was addresed on behalf of the Council to the President of the Board of Education pointing out that from experience gained in the Institute Examinations it was felt that the type of general education leading up to architecture and kindred callings required to be very greatly improved if it is to develop on the best lines the mental outlook demanded in all who are engaged in the building industries. The memorial, touching also on the wider aspect of the national attitude towards corporate life and the demands of civilisation, showed that the improvement suggested in educatio would be of value not only as preparator to the exercise of the callings connecte with building but from the point of vie also of general culture. Later in th session the Council, at the invitation of th Board of Education, sent representatives t discuss the Institute's suggestions with th Chief Inspector of Secondary Schools. A a result of the interview, assurances hav been given that the Education Authority i revising the existing school curriculum wil have regard to the views of the Institute and that as far as practicable endeavou will be made to give effect to them.

National War Museum.

The Council, realising the unique opportunity the proposed National War Museu would afford for a national and Imperia architectural monument worthy of th events it would commemorate, addresse the Government on the subject, urging tha when the time came for considering th means of procuring designs the most desi able procedure would be by a competitio open to architects of the whole Empir and offering to assist in the organisation i such a competition were decided on. Th First Commissioner of Works, in repl promised that the Institute's suggestio should be kept in mind and that he woul receive a deputation to discuss the matte when the time was ripe to take definit action.

(*To be concluded.*)

COMING EVENTS.

SATURDAY, MAY 4, TILL SATURDAY, MAY 18.

Ridley Art Club, Grafton Galleries.—Thirty-first Exhibition (in Aid of Serbia Red Cross). Open 10 a.m. till 6 p.m.

THURSDAY, MAY 9.

The Concrete Institute.—Mr. Alban Scott, Vice-President Society of Architect on "Reinforced Concrete Ships," wit lantern illustrations, at 6 p.m. Also Nint Annual General Meeting, Mr. F. Wentworth-Shields, M.Inst.C.E., pr siding.

FRIDAY, MAY 10.

International Society of Sculptor Painters, and Gravers, Grosvenor Galler —Private View, Summer Exhibition, a.m. till 6 p.m.

FRIDAY AND SATURDAY, MAY 10 AND 11

Royal Sanitary Institute (Meeting in th Assembly Rooms, Town Hall, Hereford).—Dr. Dryburgh Gold, M.D. (M.O.H. Her ford C.C.) on "Tuberculosis: Its Trea ment and Present Position," and Mr. G. Jack, M.Inst.C.E. (County Surveyor Her ford C.C.), on "Notes on the Cultivation Lands Order, 1918, with Special Referen to Land Drainage," at 5 p.m. (Frida Mr. John Parker, M.Inst. C.E. (Ci Surveyor, Hereford), on "Cost and Co struction of Workmen's Dwellings, Road Sewers, and Water Supply in Connecti with Town Planning," at 10 a. (Saturday). Professor A. Bostock Hi M.D., in the chair.

TUESDAY, MAY 14.

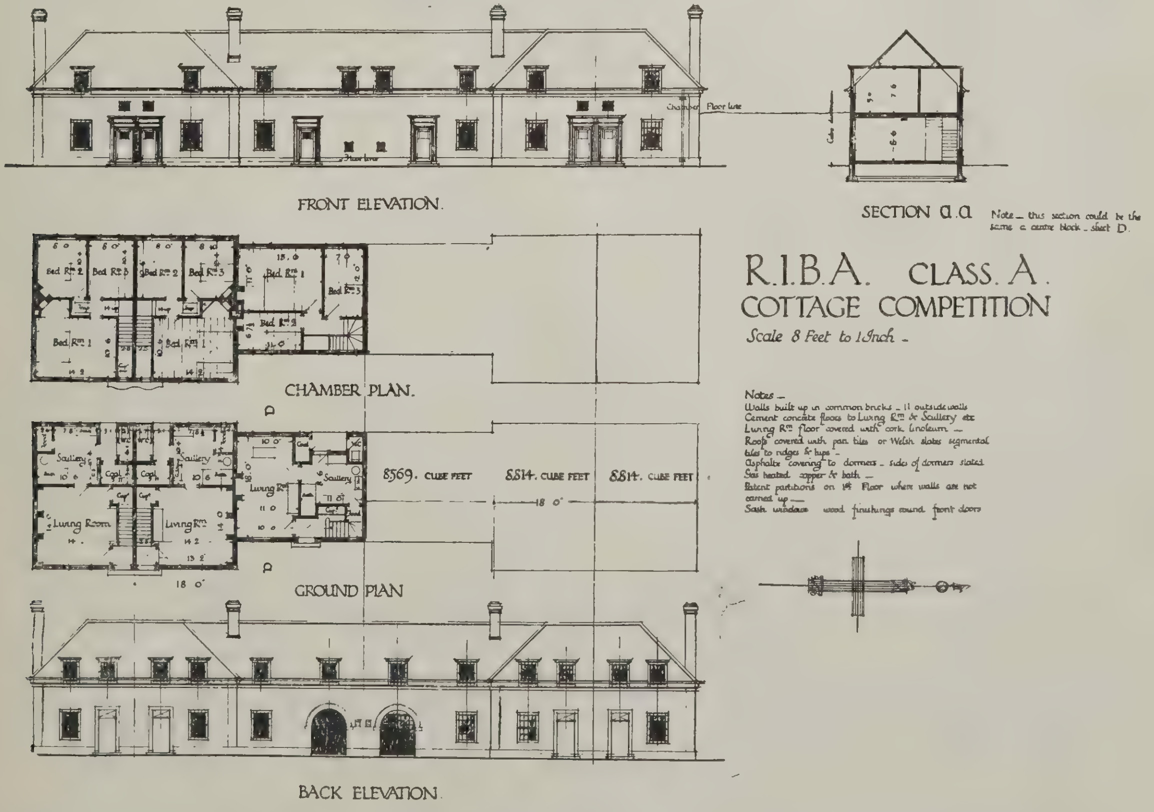
Illuminating Engineering Society.—Di cussion on "The Lighting, Heating, a Power Order (1918), and the Best Metho of Making Economies," at 6.30 p. Members' formal business at 6.15 p.m.

WAR·BVILDINGS·SECTION

HE LOCAL GOVERNMENT BOARD AND R.I.B.A. COTTAGE COMPETITIONS.

BY C. H. B. QUENNELL, F.R.I.B.A.

TO be asked to write a critical article on a competition which one has been gorously slating is to be placed in an nbarrassing position, especially when it coupled with a request to search for ood rather than evil intention—but one ust understand the terms of reference or the conditions under which the competition was held. Criticism of any value at all is not possible until one knows the purpose the designs are intended to serve. The first idea was to obtain a standard cottage. This is fairly apparent if the particulars published in the "R.I.B.A. Journal" for November, 1917, are examined. Clause 5 states that "It is to be understood by competitors that the payment of the premiums conveys the absolute possession of the designs, including all copyright or other rights." Again, in the letter addressed by the Local Government Board


FRONT ELEVATION.
SECTION a.a
Note – this section could be the same a centre block – sheet D.
R.I.B.A. CLASS. A.
COTTAGE COMPETITION
Scale 8 Feet to 1 Inch –
Notes –
Walls built up in common bricks – 11 outside walls
Cement concrete floors to Living Rm & Scullery etc
Living Rm floor covered with cork linoleum –
Roofs covered with pan tiles or Welsh slates segmental tiles to ridges & hips –
Asphalte covering to dormers – sides of dormers slated
Gas heated copper & bath –
Patent partitions on 1st Floor where walls are not carried up –
Sash windows wood finishings round front doors
CHAMBER PLAN.
Bed Rm 1
Bed Rm 2
Bed Rm 3
GROUND PLAN
Scullery
Coal
Living Room
Living Rm
8569. CUBE FEET
8814. CUBE FEET
8814. CUBE FEET
18 0
BACK ELEVATION.

R.I.B.A. NATIONAL HOUSING COMPETITIONS (MIDLAND AREA): FIRST-PREMIATED DESIGN, CLASS A.

STOCKDALE, HARRISON AND SONS, AA.R.I.B.A., ARCHITECTS.

on March 18 to local authorities, attention is drawn to their 6d. book of plans, published in 1917, and to the fact that the supply is to be augmented as a result of this same R.I.B.A. competition.

Again, in a letter from Mr. W. H. Seth-Smith, in THE ARCHITECTS' AND BUILDERS' JOURNAL of March 13, reference is made to a Government housing scheme at Chepstow, now being laid out without any consideration of town-planning principles, the houses being described as "oblong blocks aggressively utilitarian." All this seemed to point to a lack of any real appreciation of the fundamentals regulating the proper lay-out of a group of houses and the wish to secure stock patterns. Now, judging by the report of the R.I.B.A. Council, and owing to representations by the President and Sir Aston Webb, the Local Government Board "have declared their intention of securing the employment of architects in housing schemes over which they have control," and, speaking of the cottage competition, "The plans so obtained are to serve as guides to local authorities and others, and to be used as instructions to the architects employed on the schemes." So the designs are to be standard types, and delightful possibilities are opened up. Let us imagine a nice young architect, back from the war, all happily over, and aglow with excitement at having obtained the commission to design houses for his native town. It would be quite appropriate that, having served his country in one connection, he should be given some preference in the other. But the job is obtained, and its possibilities seem unlimited. Our friend dreams dreams and sees visions of other work following; it will set him up in practice; get over the difficulty of making a start; give the ardently desired opportunity of putting one brick on the top of another. Our young architect may have been trained at Liverpool and Neo-Grec to the end of his T-square, and his particular local authority hands out Standard A 22, which happens to have the real Garden City touch about it and to have caught the fancy of the Town Council by the wayward beauty of its roof. Or, again, if this town is in the Home Counties, a design made for Oxfordshire may be suggested for Kent.

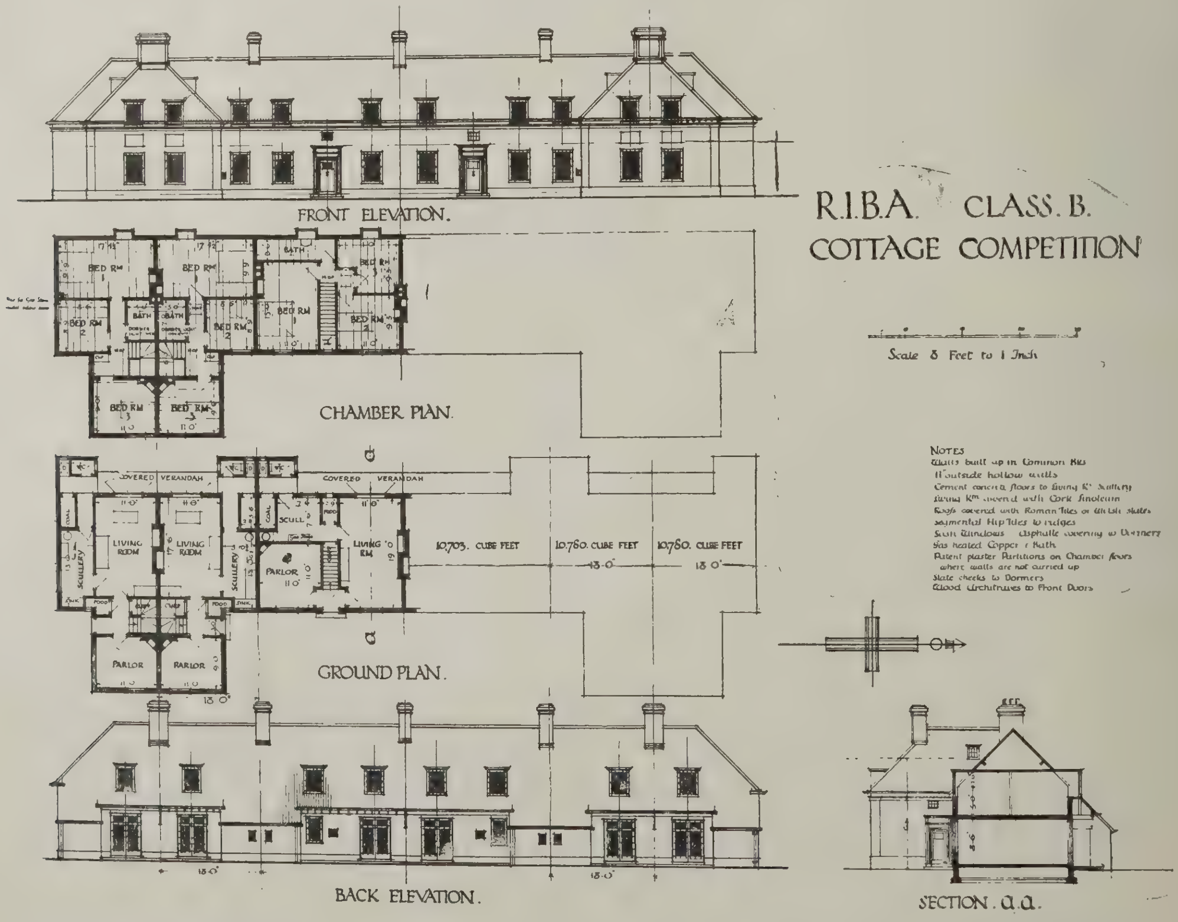
It is going to be very hampering, this handing out of types from which one is supposed to gain inspiration; and, furthermore, in making any criticism of the designs now on view at the R.I.B.A. this fact must be borne in mind. The type should be innocuous if it is to be used in town and country over so wide an area as the Home Counties, which is defined in the conditions as stretching from Oxfordshire in the west to Essex in the east, and from Cambridge down to Sussex. If you can only afford one waistcoat it is a good policy not to have it sky-blue in colour; and if we are to be limited to one type, or one school of design, then most certainly it should not be of the wildly picturesque order. Looking to nature, the common stock is always sober, and the startling effects are left to the hybrid or freak.

Another point to be borne in mind is that this war has done that which no other war ever did—made a definite and distinct break in tradition. The carpenters and joiners, the masons and bricklayers, the plumbers and glaziers, the shop foremen and out-of-door men are soldiers or making munitions; doing anything but building, except it be war construction work of flimsy character. It must of necessity take a long time after peace is declared to get back to a good working tradition. You cannot do fine building with a gang of men who have never worked together before, and it would be quite useless to expect from them expert craftsmanship. So that when the start in building is made again it must be done with types of building which are simple to do.

Having these considerations in mind, we can turn to the designs and start with those premiated in Class A (Home Counties Area). Here the first prize has gone to Mr. Courtenay M. Crickmer for a very pleasant, sensible design. The accommodation to be provided consists of a living room, scullery, etc., and three bedrooms. Externally, the design harmonises as a symmetrical block of building, very simply roofed, with an unbroken gutter line. The various parts are pleasantly balanced, and there is an entire lack of any affectation or fussiness.

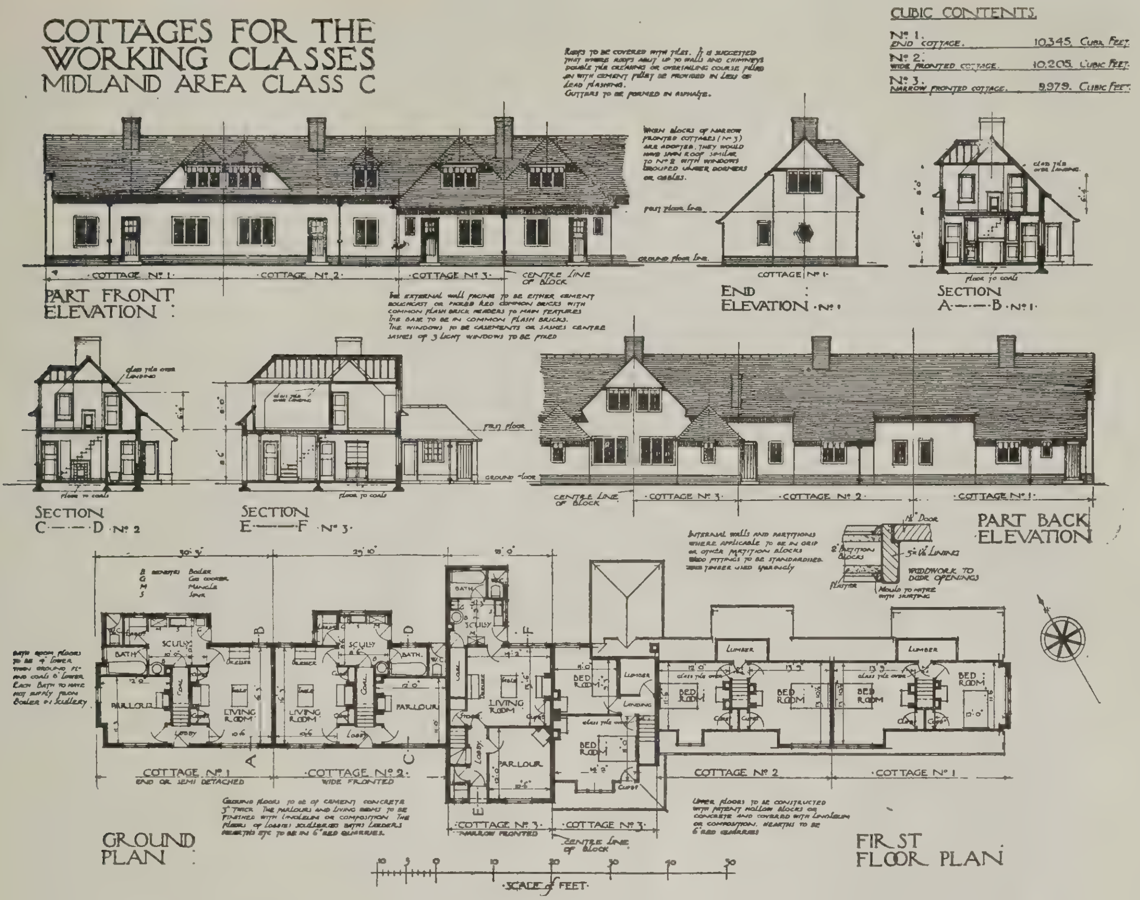
The second prize in this Class (A) goes to Mr. F. C. W. Barrett for another very good straightforward design.

Honourable Mention goes to Mr. C. Wontner Smith in this class. This design, of a stone treatment, is shown by a singularly beautiful drawing but it would need a guild of the mediæval craftsmen to do it justice, and then they would not have wanted the drawing. It is so easy to criticise, so difficult to do; yet one feels that this design is a re-creation of the past that will never be possible again, and the complexity of its roofing, with much cutting and contingent cost, rule out such a house as a standard type. One never knows;

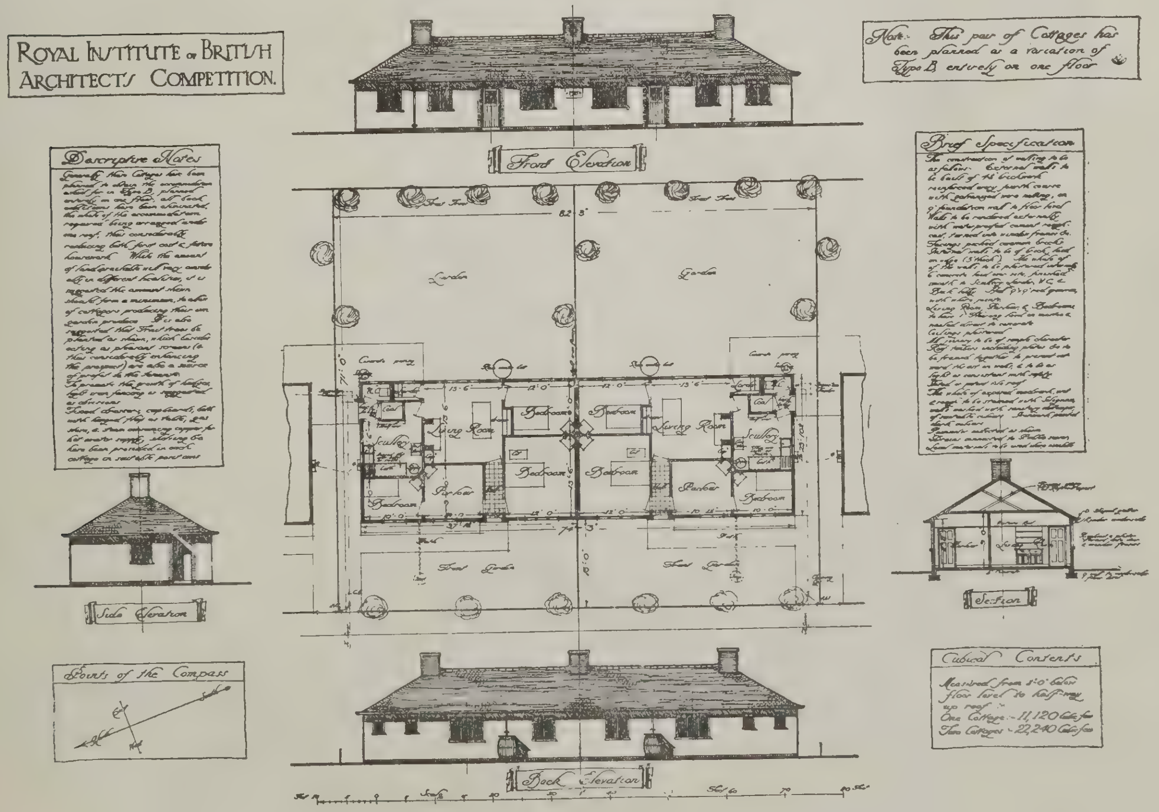


R.I.B.A. NATIONAL HOUSING COMPETITIONS (MIDLAND AREA): FIRST-PREMIATED DESIGN, CLASS B

STOCKDALE, HARRISON, AND SONS AA.R.I.B.A., ARCHITECTS.


COTTAGES FOR THE WORKING CLASSES
MIDLAND AREA CLASS C
CUBIC CONTENTS.
Nº 1. END COTTAGE. 10,345. CUBIC FEET.
Nº 2. WIDE FRONTED COTTAGE. 10,205. CUBIC FEET.
Nº 3. NARROW FRONTED COTTAGE. 9,979. CUBIC FEET.
ROOFS TO BE COVERED WITH TILES. IT IS SUGGESTED THAT WHERE ROOFS ABUT UP TO WALLS AND CHIMNEYS DOUBLE TILE CREASING OR OVERSAILING COURSE FILLED IN WITH CEMENT FILLET BE PROVIDED IN LIEU OF LEAD FLASHING.
GUTTERS TO BE FORMED IN ASPHALTE.
WHEN BLOCKS OF NARROW FRONTED COTTAGES (Nº 3) ARE ADOPTED, THEY WOULD HAVE SPAN ROOF SIMILAR TO Nº 2 WITH WINDOWS GROUPED UNDER DORMERS OR GABLES.
FIRST FLOOR LINE
GROUND FLOOR LINE
·COTTAGE Nº 1·
·COTTAGE Nº 2·
·COTTAGE Nº 3·
CENTRE LINE OF BLOCK
PART FRONT ELEVATION
THE EXTERNAL WALL FACING TO BE EITHER CEMENT ROUGHCAST OR PICKED RED COMMON BRICKS WITH COMMON FLASH BRICK HEADERS TO MAIN FEATURES. THE BASE TO BE IN COMMON FLASH BRICKS. THE WINDOWS TO BE CASEMENTS OR SASHES CENTRE SASHES OF 3 LIGHT WINDOWS TO BE FIXED
END ELEVATION ·Nº 1·
SECTION A——B ·Nº 1·
FLOOR TO COALS
SECTION C——D Nº 2
SECTION E——F Nº 3
FIRST FLOOR
GROUND FLOOR
PART BACK ELEVATION
INTERNAL WALLS AND PARTITIONS WHERE APPLICABLE TO BE IN GRIP OR OTHER PARTITION BLOCKS. WOOD FITTINGS TO BE STANDARDISED AND TIMBER USED SPARINGLY
2" PARTITION BLOCKS
PLASTER
5"×1¼" LINING
1½" DOOR
WOODWORK TO DOOR OPENINGS
MOULD TO MITRE WITH SKIRTING
B DENOTES BOILER
G GAS COOKER
M MANGLE
S SINK
BATH ROOM FLOORS TO BE 4" LOWER THAN GROUND FL. AND COALS 6" LOWER. EACH BATH TO HAVE HOT SUPPLY FROM BOILER IN SCULLERY
30' 3"
29' 10"
BATH
SCULLY
PARLOUR
LIVING ROOM
LOBBY
COAL
LARDER
DRESSER
BED ROOM
LUMBER
LANDING
CUPBD
GLASS TILE OVER
COTTAGE Nº 1 END OR SEMI DETACHED
·COTTAGE Nº 2· WIDE FRONTED
·COTTAGE Nº 3· NARROW FRONTED
GROUND FLOORS TO BE OF CEMENT CONCRETE 3" THICK. THE PARLOURS AND LIVING ROOMS TO BE FINISHED WITH LINOLEUM OR COMPOSITION. THE FLOORS OF LOBBIES SCULLERIES BATHS LARDERS HEARTHS ETC TO BE IN 6" RED QUARRIES.
UPPER FLOORS TO BE CONSTRUCTED WITH PATENT HOLLOW BLOCKS OR CONCRETE AND COVERED WITH LINOLEUM OR COMPOSITION. HEARTHS TO BE 6" RED QUARRIES
GROUND PLAN
FIRST FLOOR PLAN
10 5 0 10 20 30 40 50
·SCALE OF FEET·

FIRST-PREMIATED DESIGN, CLASS C. F. W. C. GREGORY, ARCHITECT.


ROYAL INSTITUTE OF BRITISH ARCHITECTS COMPETITION.
Note:- This pair of Cottages has been planned as a variation of Type B entirely on one floor
Front Elevation
Descriptive Notes
Brief Specification
Garden
Living Room
Bedroom
Parlour
Scullery
Side Elevation
Section
Points of the Compass
Cubical Contents
Measured from 1'-0" below floor level to half-way up roof :-
One Cottage :- 11,120 Cubic feet
Two Cottages - 22,240 Cubic feet
Back Elevation
Scale

R.I.B.A. NATIONAL HOUSING COMPETITIONS (MIDLAND AREA): FIRST-PREMIATED DESIGN, CLASS D.

CLELAND AND HAYWOOD, ARCHITECTS.

some unscrupulous local authority may disguise their surveyor as an architect, and one trembles to think of what could be made of Mr. Wontner Smith's design under such circumstances. A brick box with a slate lid would be preferable.

The same remarks apply to very charming designs by Mr. B. E. Beresford and Mr. A. P. Starkey in this class. If they are going to carry out the designs themselves and pay frequent visits to see that their intentions are carried out it would be satisfactory, and the cottages might be expected to carry on the old traditions on which they have obviously been founded. In Class B (Home Counties), for which living room, parlour, scullery, etc., and three bedrooms have to be provided, the first prize goes to Mr. Alfred Cox, and again for an eminently sensible design. The plan is all that it should be, and results in a very simple building externally. If criticism must be made, it is to the effect that the design would not have been in any way spoilt by a flatter roof, which would have improved the bedrooms, saved cutting to the dormers, and reduced cost.

Mr. Crickmer is placed second in this class (B), and here we do not think he has done as well as in Class A. In the centre pair of cottages the larder is placed next to the front door, and the scullery is a poor little place for washing day. It is doubtful if a good pram for twins could be wriggled into its cupboard in the adjoining pair. The copper, too, in these and the end cottages does not seem well placed, or provision made for a wringer. Captious criticism, perhaps, of a common-sense layout.

Honourable Mention in this class (B) goes to Mr. W. Smith for a pleasing treatment, which is, however, much cut about; and to Mr. John C. S. Soutar for a good roomy plan, lending itself to a plain, sensible exterior.

Mr. Crickmer has been successful again in Class C (Home Counties), living room, parlour, scullery, and two bedrooms. He is placed first again for a good common-sense design. Externally we should have liked a simpler roof with a continuous gutter line; it would be cheaper and improve the accommodation inside. What an old foreman used to call a "sparrow-chaser" roof always adds to cost because it adds to labour.

The same objection can be raised to Mr. Wontner Smith's design, placed second. There is far too much cutting in the roof, but as a pre-war design it would have been excellent, and, like Mr. Wontner Smith's other designs, is very beautifully drawn.

In Class D (Home Counties) variations of A, B, and C are to be planned entirely or mainly on one floor, and here Mr. John A. W. Grant is placed first for a very commendable design. The oblong block of building, free from any breaks, is covered with a roof simply and easily constructed, and the only objection that can be raised is that the gutters might have been continuous instead of having the trifling drop at the sides. The plan is a thoroughly sound one, and in our opinion this design suits its purpose in an admirable way.

The second design, by Mr. Mosley, and that given Honourable Mention by Mr. Wontner Smith, are both very pleasing.

Space does not permit of mention of designs in the other areas in any detail, but note must be made of the very interesting design by Mr. H. L. North, which has been awarded the first prize in Class A for the Manchester and Liverpool district. Here a good, careful plan is covered with a roof, the small slates of which are "waved" over the bedroom windows. Now, if Mr. North does the waving we shall not feel anything but admiration for the way he does it, but if our enemy the Borough Surveyor, again disguised as an architect, attempts any such conjuring trick, we shall be seriously alarmed, especially if he keeps on doing it. It would be as maddening as the reiterations of a mock rustic face in a concrete block. Such a design as Mr. North's needs his superintendence to make it successful, because he will vary his waviness, or leave it out sometimes, or develop it, and the people of the Manchester and Liverpool district should demand that they are entitled to have the full benefit of the most skilful advice that they can get, because they have to live in the cottages and with them. This is the position the R.I.B.A. should take up, that all this nonsense of standard types should be dropped and men employed to carry out their designs, and not only the prize-winners, but as many of the competitors as possible, each in his own district. The competition will not have been a failure, because all the men who have worked on it will have had the benefit of seeing all the other men's work and so be able to improve their own accordingly. This should be done, not because they are architects and want jobs, but because it is the only way to render the best service they can to the community. We must put up a fight; there should be no supplication of favours, but a demand to be allowed to do one's best work in the best possible way.

The disappointment of the competition is that no very new ideas seem to have come to light, and architecture would still appear to be a very undisciplined art. If instead of a standard cottage a standard method of building had been evolved we should have helped matters.

We want to get back to the spirit of Georgian times, when the builders with much the same type of door, window, and cornice produced the pleasant variations we now find grouped round the market place of any county town. It was all so eminently reasonable; seems to have been so simple to do; does not scream, or shout, or advertise itself. But, perhaps, this is just why it would not suit us.

TRADE AND CRAFT.

Thrift in the Use of Gas.

An illustrated leaflet, prepared by the British Commercial Gas Association, 47, Victoria Street, London, S.W.1, indicates many valuable means of effecting economy of gas consumption in house and kitchen. It is emphasised that the fir and perhaps the most important poi is to ensure the proper working of all g apparatus. If burners are clogged an faulty, if radiants in gas fires are broke and so on, heat, and therefore money, a wasted. It is well, therefore, to arrang with the gas office for the maintenance fittings—that is, for periodical visits b gasfitters and repairers, who, for nominal sum, keep everything in orde It is sound advice, also, that the cheape mantle is the dearest in the end. Whe mantles are broken, the ash should b saved and returned to the gas office, whe it can be used again. Globes and chin neys should be kept well dusted an washed. They may be toughened an made more resistant by putting them in a saucepan of cold water, bringing slowly to the boil, and then leaving the in the water to cool gradually. Then, lik fireproofed cooking vessels, they will n smash the first time the gas is lighte When an incandescent burner is to l lighted, the match should be applie before the gas is turned on, othe wise the mantle may be shatter through the accumulation of ga Excellent instructions with respect cooking by gas is included in the leafle from which we extract the following i formation on how to read a meter: Gas measured in thousands of cubic feet. I therefore, you have burned ten thousand and gas in your district is, say, half crown a thousand, your bill will be te half-crowns. The meter consists of fi dials (see diagram). Of these the top o should be neglected; then the figur indicated by the four lower ones should b written down from left to right, and added to the end. If the hand is betwee two figures, the lower should always b written down, with the exception that whe it is between 9 and 0, 0 must be recorde From these few extracts it will be see how valuable this leaflet is to all gas-user

Bell's United Asbestos Co., Ltd.

It is officially announced that th directors of this company have resolve in view of the audited accounts December 31, 1917, and after providin for excess profits duty, to recommend the shareholders at the general meeting be held on May 23, 1918, the payment of balance dividend of 1s. 6d. per share o the ordinary shares of the company and bonus of 6d. per share, which, with th interim dividend paid in October las makes a total distribution of 15 per cen for the year. The amount to be placed t reserve is £15,000. The amount to b carried forward is £8,984.

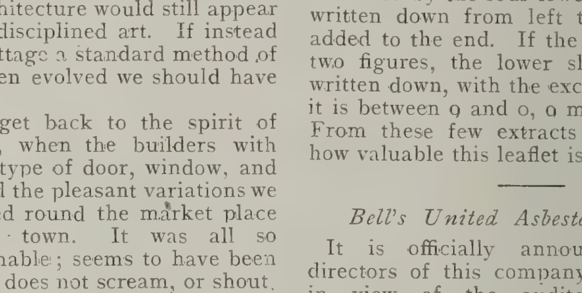
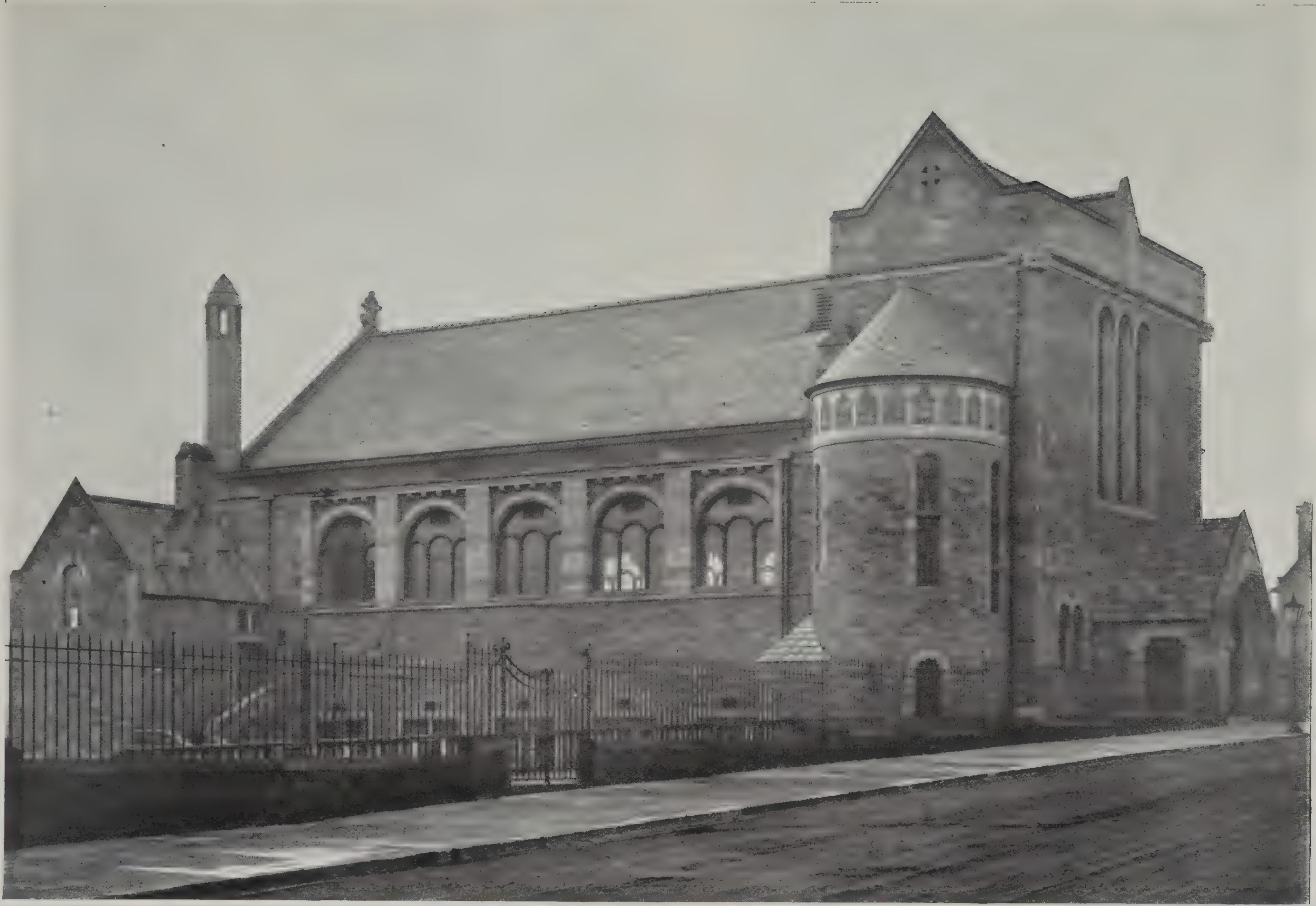
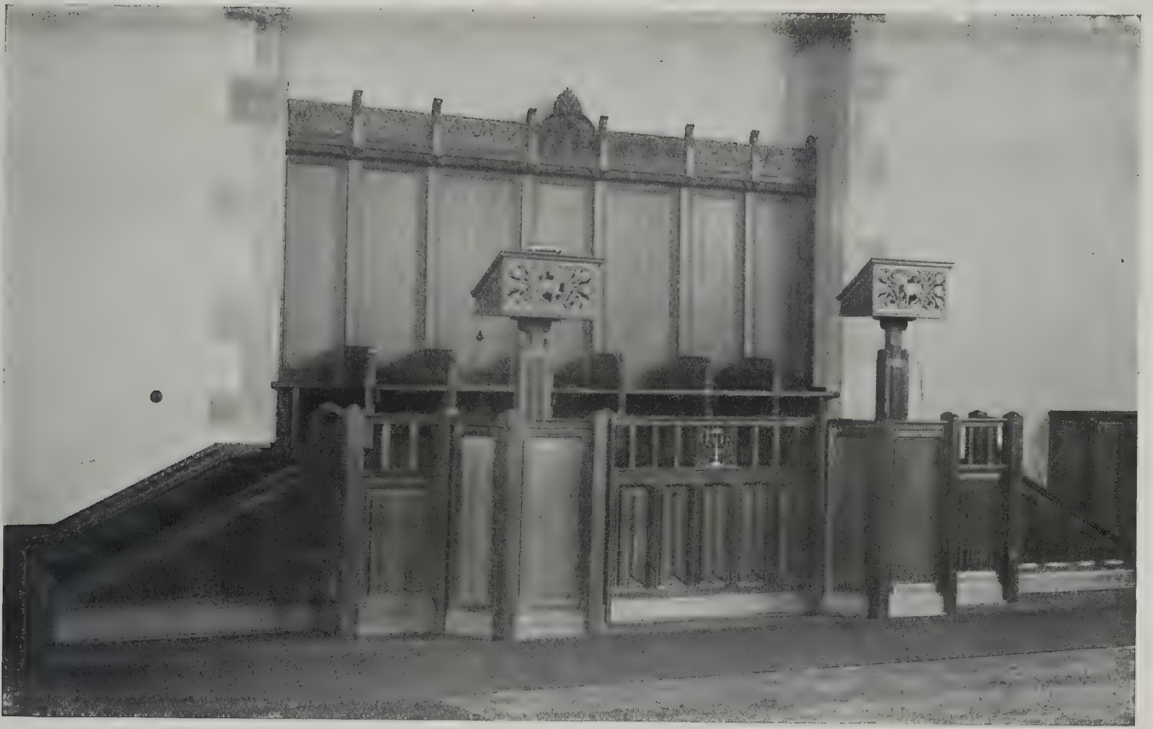


DIAGRAM OF GAS METER INDEX.

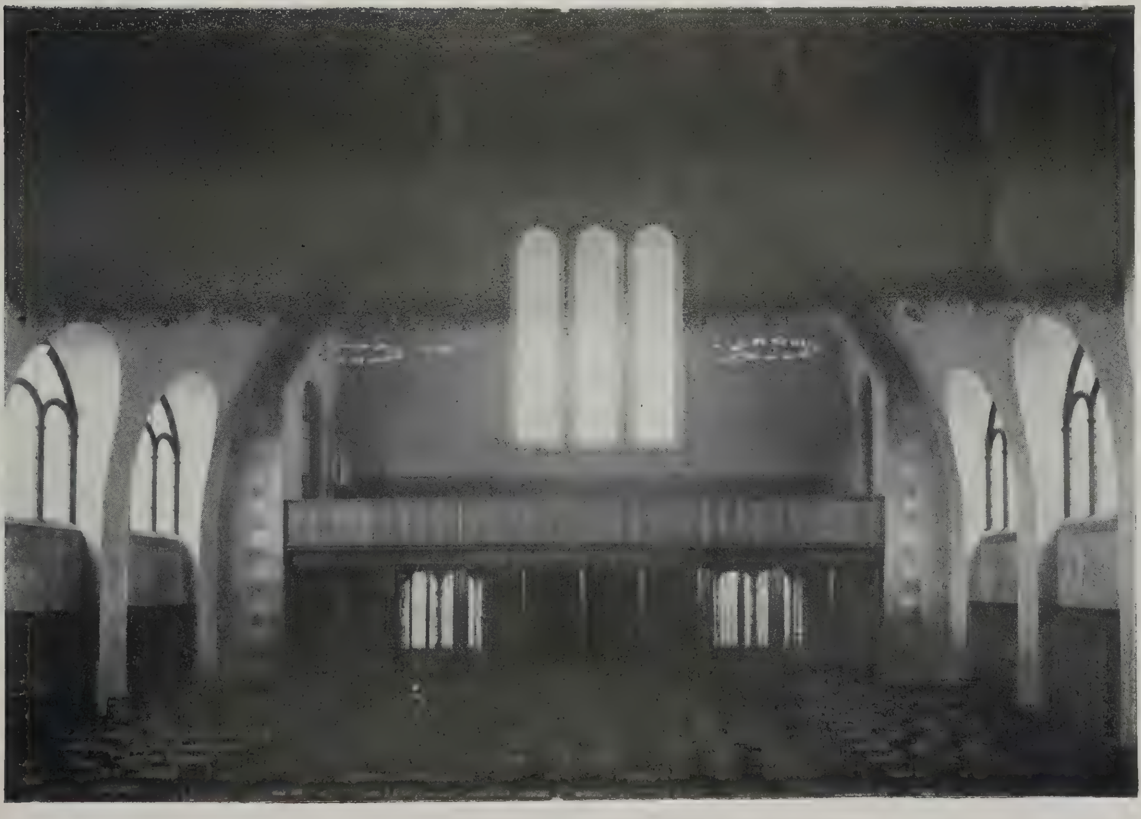


CURRENT ARCHITECTURE (SERIES V.). XIII.—FIRST CHURCH OF CHRIST, SCIENTIST, INVERLEITH TERRACE, EDINBURGH.

RAMSAY TRAQUAIR, A.R.I.B.A., ARCHITECT.



Platform and Reading Desks.



General View of Interior.

CURRENT ARCHITECTURE (SERIES V.). XIV.—FIRST CHURCH OF CHRIST, SCIENTIST, INVERLEITH TERRACE, EDINBURGH.

RAMSAY TRAQUAIR, A.R.I.B.A., ARCHITECT.

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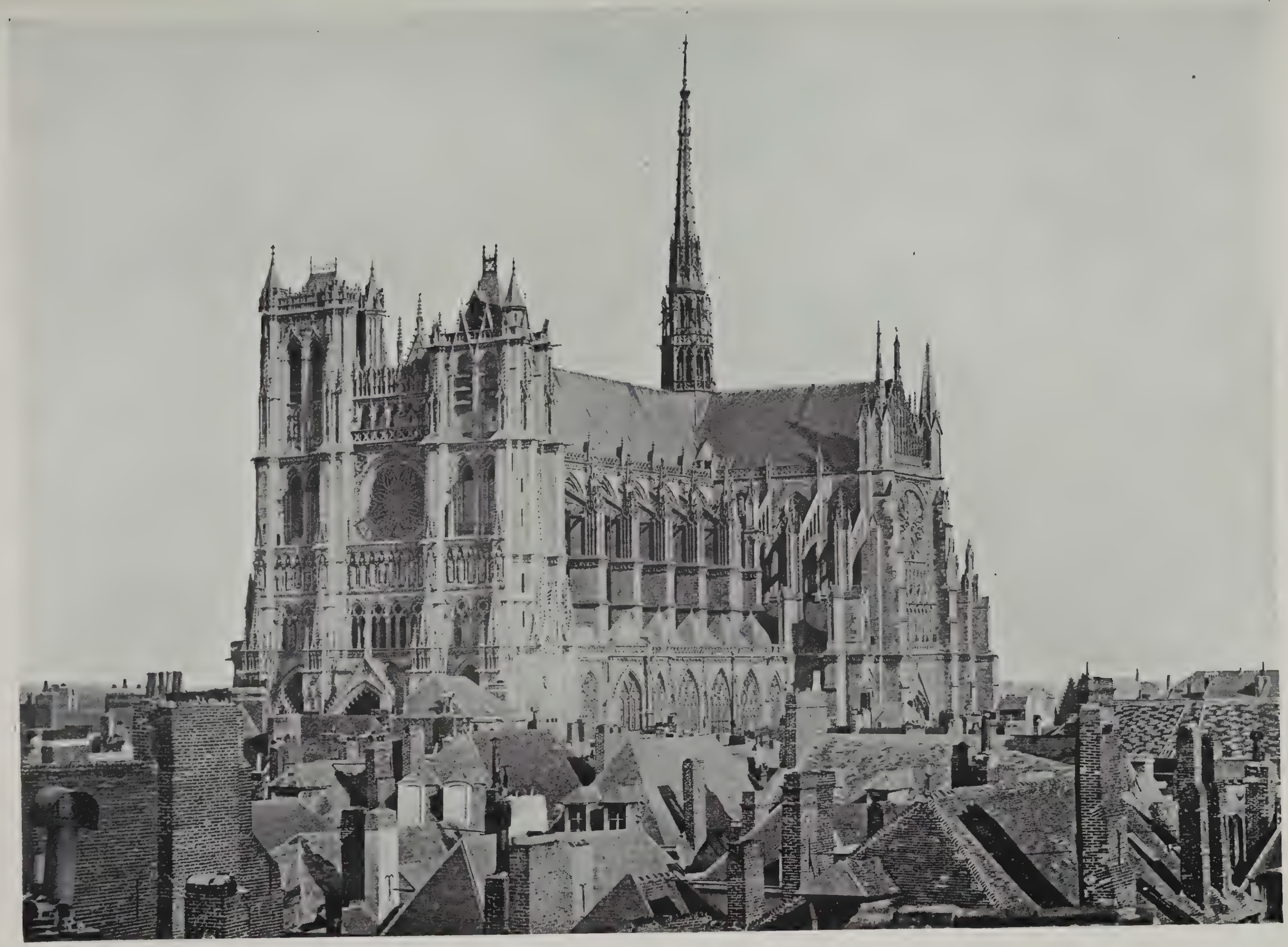
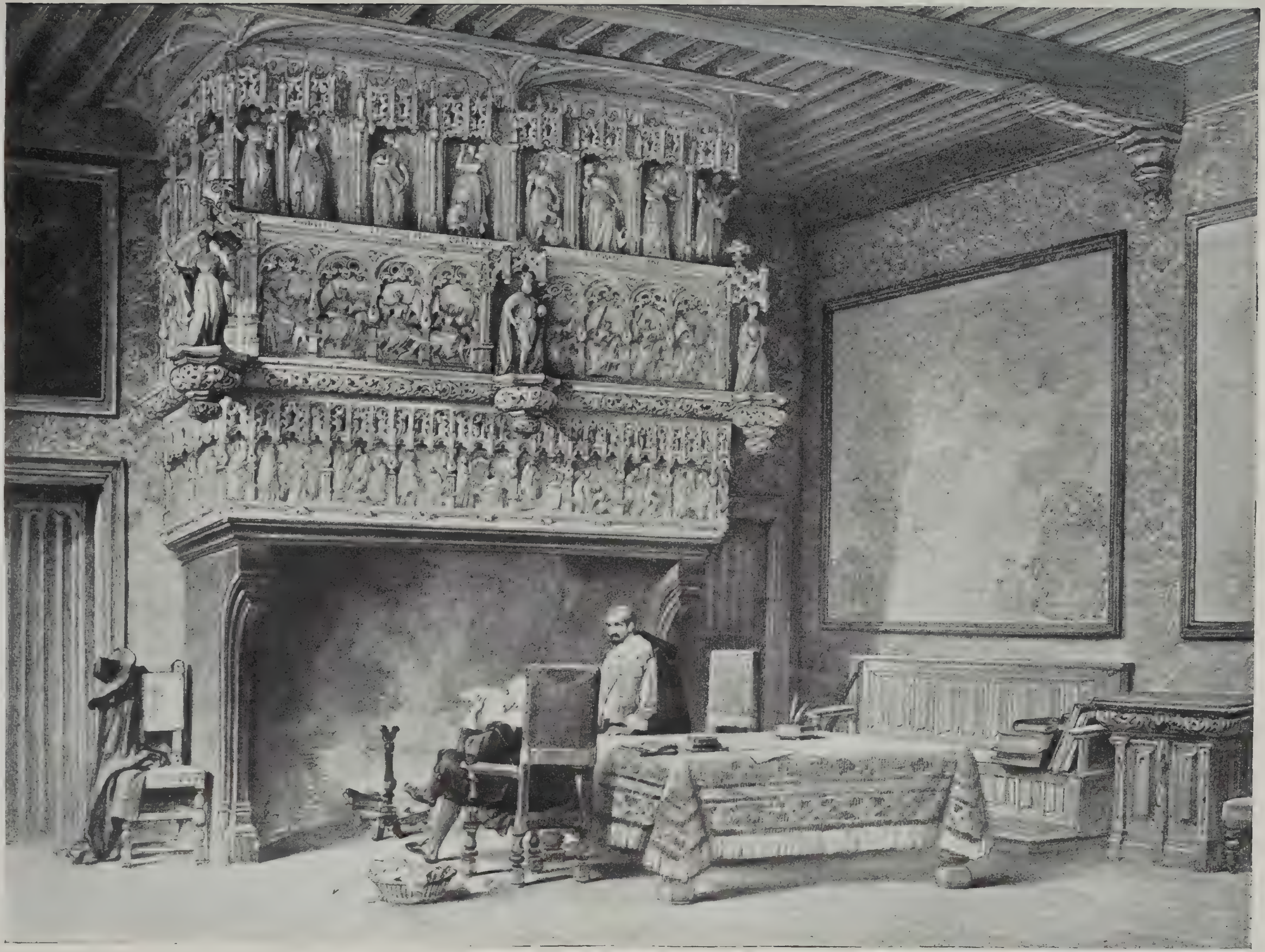


ARCHITECTURAL MONUMENTS IN THE WAR ZONE. II.—AMIENS CATHEDRAL.

[illegible]
UNIVERSITY OF ILLINOIS



ARCHITECTURAL DRAWINGS AND SKETCHES. XVII.—CHIMNEYPIECE IN COUNCIL ROOM OF TOWN HALL, COURTRAI.

(*From the Lithograph by Louis Haghe.*)

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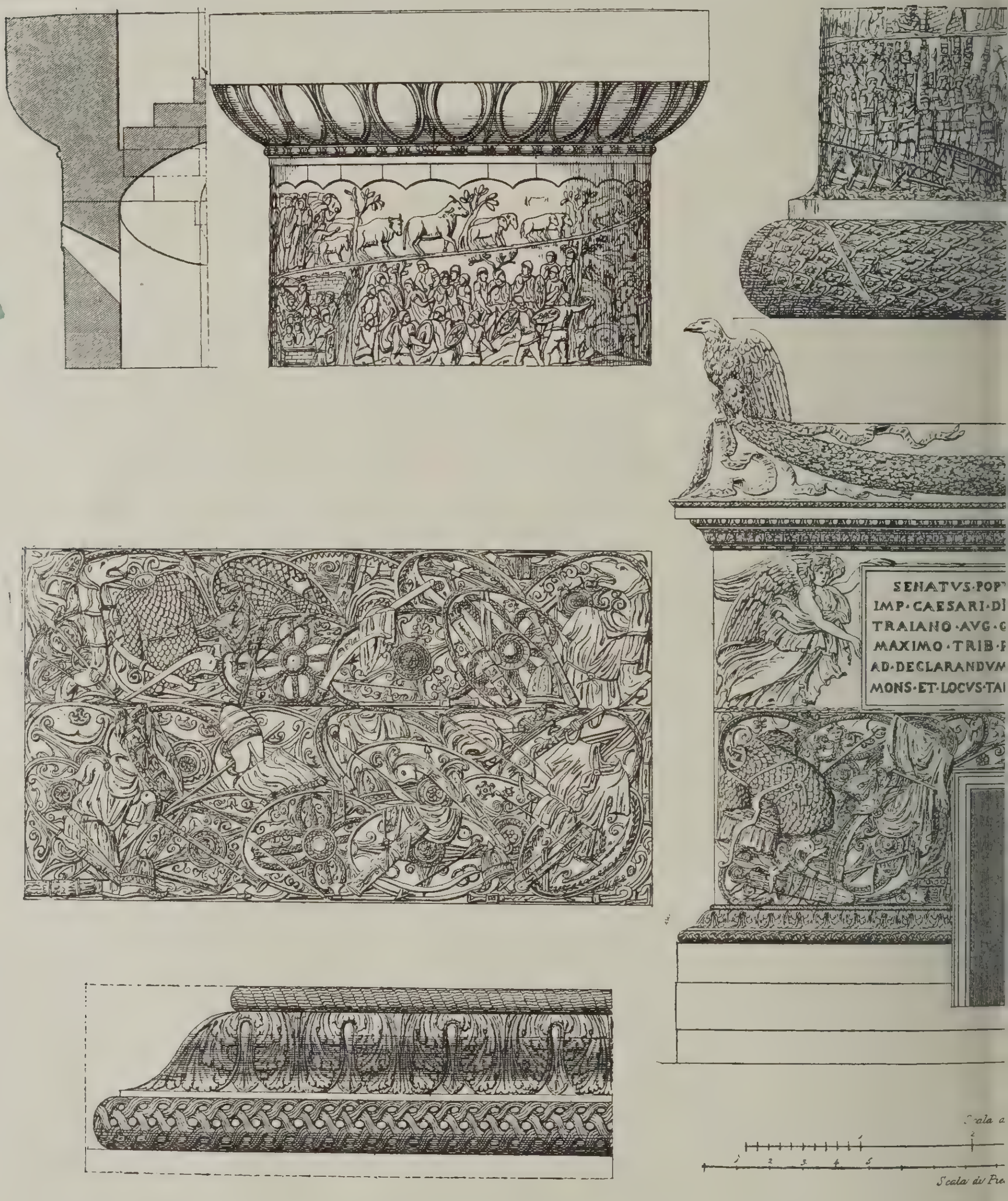
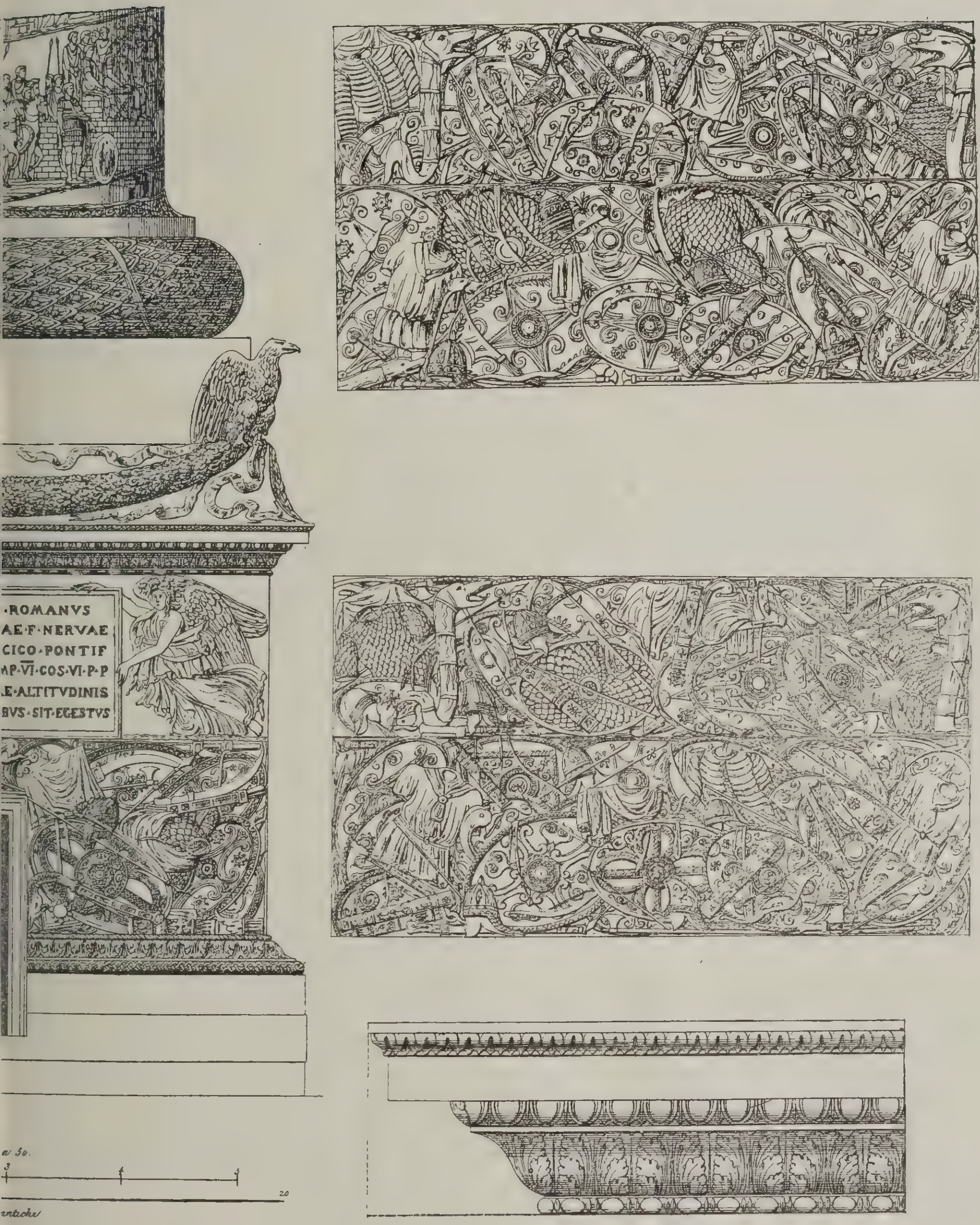


COMMEMORATIVE COLUMNS AND OBELISKS. XIII.—DETAILS

(From



RAJAN'S COLUMN, ROME, SHOWING MILITARY TROPHIES.
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THE ARCHITECTS' AND BUILDERS' JOURNAL.

MAY 15, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1219.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restric- ons on paper supplies, all elements of waste must rigorously excluded. Our readers, we are sure, ll gladly assist in promoting this object, which is item in national economy. They can co-operate th us effectually in either of two ways—(1) By acing a direct subscription for this Journal, or (2) placing with a newsagent an order for its regular livery. Casual purchases—now here, now there— ate a serious discrepancy between supply and mand, and cause wastage of effort and materials. Readers who meet with instances of waste of per should communicate by letter with the Paper ntroller, 23, Buckingham Gate, S.W.

CONCERNING the exhibition of architectural drawings at the Academy, our "Diogenes" has unearthed some rather luminous observa- ns which Mr. E. Ingress Bell made on this partment of the exhibition held exactly forty years o. Mr. Bell held that an architectural drawing is cessarily unattractive to the general public, because, like painting and sculpture, it is not a final product, t only a project; because a building, to be rightly preciated, should be seen in three dimensions and *situ;* and because, even then, the building is new d raw, and does not reach its full pictorial effect until llowing touches have been added by time and ather. All this, our contributor comments, shows misconception of the object and character of the hitectural section. Possibly that misconception is eterate with the hanging committee, the majority whom have a very natural bias in favour of pictorial resentation; and as this bias is usually accompanied a total inability to read a plan or to interpret an vation, it follows that acceptances and rejections ve been largely made upon a false principle. This lacy has been, it is true, less conspicuous in recent ars, since architects have been more adequately resented on the committee: but that the bad tradition has not been wholly eradicated seems in to architects who, beside visiting the exhibition, ve also had the opportunity of seeing architectural awings or photographs that have been rejected. d designs (the observation is not specially applicable the present exhibition, but covers several years) ve been admitted for no better reason than that they re prettily drawn, and better designs have been ected on a mere point of picture-making.

* * * *

Mr. Ingress Bell's article, which our contributor has own us, is in pessimistic vein throughout. "At old room in Conduit Street," he says, "where hitecture was the only refreshment, the desolation s simply awful, and the exhibition died of inanition. ere is no escaping from the fact that architectural wings will not 'draw' when exhibited by them- ves, and when they are exhibited with the works of painter are not looked at." He argues, therefore, t "It is plain that the present state of things is not ducive to the best interests of the art, and it is time should withdraw from an assembly where our sence is *de trop*, and no longer 'make ourselves a tley to the view' for a public who will not even look the performance." That, be it remembered, was written forty years ago; and the architectural show at the Academy is still extant. There must be reasons for its vitality, and Mr. Ingress Bell's inability to see them has been happily without effect. He made an egregious mistake in supposing the architectural drawings to be in competition with the easel-pictures, which have, as regards the attraction of the general public, the enormous advantage of variety of subject and treatment. Nevertheless, the question of relative popularity is beside the mark. One would not wish to abolish churches because most people prefer to go to theatres, or to close the theatres because cinemas and variety shows are more popular. There is only one point to consider, and that is whether the architectural department justifies its existence by its promotion of the objects it is intended to serve—there is no need to specify them. As a raree-show it may be comparatively a failure. But we are under the impression that it serves a higher purpose.

* * * *

It is a proud position, that of being the oldest provincial achitectural society in England. This claim is advanced by the Liverpool Architectural Society, which, in the language of its annual report, "has now completed seventy years of useful service." It is only a matter of fourteen years junior to the Institute, which was founded in 1834, held its first open general meeting in the following year, and was granted a royal charter in January, 1837. It did not become the "Royal Institute," however, until 1866; and it was not until 1887 that it obtained its supplemental charter conferring on it such privileges as the power to conduct examinations for certificates and diplomas. Liverpool's claim to priority over other societies is substantiated by such dates as appear in the list of allied societies that in pre-war days the Institute gave in its Kalendar. It will be interesting to bring them together. They are as follows: Aberdeen, 1898; Birmingham, 1873; Bristol, 1850; Devon and Exeter, 1890; Dundee, 1884; Edinburgh, 1858; Glasgow, 1868; Hampshire and Isle of Wight, 1912; Leeds and West Yorkshire, 1876; Leicester and Leicestershire, 1872; Manchester, 1865; Northamptonshire, 1911; Northern, 1858; Nottingham, 1862; Sheffield, 1886; South Wales, 1890; York, 1882. The Royal Institute of the Architects of Ireland, founded in 1839, antedates Liverpool by nine years, but would scorn to come into the category of "provincial associations." Possibly the youngest of all the national organisations is that of Scotland, which, however, is a resuscitation of a much earlier institution. Liverpool's "useful service" is beyond question—and it has been as useful to the community as to the profession. One could wish nothing better than that all the provincial associations showed equal activity and public spirit. For example, it has taken up the St. George's Hall podium question with vigour and perseverance; and it will be noted with much less surprise than pleasure that it is keeping available a fund of £50 to oppose the destruction of the podium. *Hic labor, hoc opus est.*

* * * *

What's in a street-name, unless it be distinctive? Some time ago, the Glasgow City Assessor "directed the attention of the Corporation to the inconvenience, loss of time, and unnecessary expense caused by so many streets bearing the same name, and the Master of Works has been asked to report on the subject." In the course of his investigation, the Glasgow Master should consult the London Directory. There he will find simple and ingenious devices for avoiding confusion. For example, having Victoria Street at one end of the town, and yearning to repeat the mellifluous name at the other end, we satisfy the craving, and at the same time prevent misdirection, by calling the other Queen Victoria Street. Then Clifton is a very pretty name; you cannot get too much of it. But to have more than half a dozen Clifton Streets might perplex the Post Office (the public do not matter: the tram, bus, and train services were excellent before the war, and therefore, if you found that the Clifton Street you wanted was six miles from the one you had found, you could set the matter right in the course of an hour or so). Therefore many pleasing variations were introduced—Clifton Road (several), Clifton Hill, Clifton Place, Clifton Gardens, Clifton Villas, Clifton Whatnot. If you happen to forget what sort of a tag is attached to the Clifton of which you are in search, the remedy seems to be to Pelmanise your memory. Of King Streets we have rather a glut, to which the attention of the Government street name controller should certainly be directed. London ought not to be allowed to hoard names in this selfish fashion. Queen Streets and Duke Streets we stock also in considerable bulk, and we have a choice assortment of Chesters, Churches, and Cornwalls, as well as large numbers of other duplicate stamps from which the Glasgow Assessor is very welcome to make a selection. Perhaps a mutually advantageous exchange could be effected; but the Assessor is respectfully but firmly requested to reserve Sauchiehall for home consumption; no Cockney would give him even Berlin Road for it.

* * * *

It is to be supposed that an appeal in the Repton School case was inevitable. So lawyer - ridden are we that, where a public authority is one of the parties to a dispute, the matter is commonly carried from court to court until the bitter end is reached, and some transparently common-sense judgment is confirmed by the House of Lords, the proceedings, from first to last, involving an enormous waste of time and money. Whether the Repton School case will ultimately carried to the House of Lords, with the object of getting the highest possible sanction for a perfectly plain issue—or what, but for legal subtleties, would be such—remains to be seen. There is but little doubt that it will go on, from the necessity of investing with final authority a judgment of which the effect is to abolish the by-law respecting rear-space. In the Repton case it reads: "Every person who shall erect a new domestic building shall provide in rear of such building an open space exclusively belonging to such building and of the aggregate extent of not less than 150 square feet and free from any erection thereon above the level of the ground except water closet, earth closet, or privy, and an ashpit." It will be remembered that at Repton School one of the boarding-houses was extended by projecting the front. This projection being, technically, a new building as defined by the Public Health Acts Amendment Act, 1907, it should consequently have complied with the by-law as to rear space, which was obviously impossible. Mr. Justice Bailhache therefore held that the by-law, being manifestly unworkable, could not be enforced, and he gave judgment against the Repton Urban District Council and in favour of the school. This judgment has been upheld in the Court of Appeal, Lord Justice Pickford saying: "I think that a by-law which prohibits additions of this kind where no good
object could be served by the prohibition . . .
so unreasonable as to be invalid." He dismissed
appeal, with costs. We venture to predict that,
reasons already mentioned—if they can be ca
reasons—the trilogy will be completed in the Hous
Lords. Of course, the absurd by-law is already de
but the lawyers require a final certificate of its de
"Thrice they slay the slain."

* * * *

In delivering his judgment, in which Lords Just
Warrington and Scrutton concurred, Lord Ju
Pickford explained the position very clearly.
said: "The difficulty arises in a great measure f
the fact that the by-law is one of a set of m
by-laws framed in view of the meaning of 'new b
ing' in the Public Health Act, 1875, and now ap
to the much-extended meaning of those words
defined by the Public Health Acts Amendment
1907 (7 Edw. 7, c. 53). It does not seem to be mat
that the by-law was in existence at the time of
passing of the Public Health Acts Amendment
1907. As the local authority allowed it to cont
without alteration after the passing of the Act, it
be considered from the same point of view as if it
been made after the Act was passed." Under the
of 1875, he said, such an addition as that of the t
rooms in the Repton case would not have been a
building, nor would the addition of the bay win
or porch or servants' hall; but by the Act of 1
section 23, every one of these additions is of itse
new building. "It is clear," his lordship added, "
in the case of a bay window, or a porch, the
nature of the addition made it impossible for
owner to comply with the requirements of the by-
as to space at the rear, and therefore there was
effect, a prohibition against the making of any
additions." He saw no reason why this by-law sh
not be amended; but probably the local author
that have adopted it have in many instances alre
shaped it for avoidance of the difficulties that
arisen at Repton. Where such modifications have
been made, the authorities need not await the re
of an appeal to the House of Lords; and the L
Government Board should, of course, revise the m
by-laws on which the local by-laws are based.
should be done quite thoroughly, and with the as
ance of a competent committee of experts repres
ing various interests. A draft of a new set of m
by-laws should certainly be sent for revision to
R.I.B.A., the National Federation, and other c
petent authorities.

* * * *

Mr. William Frederick Yeames, R.A. (retir
whose death at the age of eighty-three took plac
May 3, was an artist of the popular order, depen
more upon the skilful drawing of a "taking" sub
than upon fine conception or individual presenta
Perhaps he was rather spoiled by his early succes
for he was made an Associate at the age of thirty-
his "Amy Robsart," shown in 1877, was bought f
thousand pounds by the Chantrey trustees; and
"When did you last see your father?" shown at
Academy Exhibition of 1878, secured his electio
the full R.A. Afterwards much of his energy
taken up by teaching in the R.A. schools,
examiner's work at South Kensington, and by
duties as curator of the Painted Hall at Green
Hospital. He was the third son of William Yea
H.B.M. Consul at Taganrog, and was born ther
1835. He studied art with George Scharf, of
National Gallery, who is best remembered as
industrious illustrator of classical encyclopædias
similar books; with F. Westmacott; and, in Flore
with Professor Pollastrini and R. Buonajuti.
married Anne, daughter of Major Winfield, and n
of Sir David Wilkie, R.A.

HERE AND THERE.

IT is forty years since Mr. W. F. Yeames, whose death was announced last week, exhibited at the Royal Academy the picture that the great-hearted British public have always regarded as his masterpiece—"And when did you last see your father?" No need to describe it: engravings have made it deadly amiliar. It is a favourite in schoolrooms, where it is esteemed as fulfilling the main condition of high art—t is supposed to be educational—to illuminate history. Possibly the first engraving of it was a woodcut forming a plate in the then newly established "Magazine f Art," of which I happen to possess a copy of the irst volume. I invite the courteous reader to glance hrough its pages with me, to see what was doing at he Academy forty years ago, who were Yeames's hief contemporary exhibitors, and how the art world was wagging in those Mid-Victorian days.

* * * *

It may be safely assumed that the appearance of the Magazine of Art" was in itself a portent of considerable significance: that in 1878 there was a marked evival of popular interest in art. Messrs. Cassell, Petter, and Galpin would not have lavished money on his adventure unless they had felt reasonably certain hat there was a public awaiting it. John Cassell had hen been some years dead, and his surviving partners were much less bold in mere educational experiment. They chose an opportune moment for starting. Early n the volume there are a "First Notice" of the Royal Academy Exhibition, another of the Grosvenor Gallery. and yet another of the Dudley Gallery; while beginning is made with a series of articles on the Paris Universal Exhibition. Surely art interests were unning high, and the magazine took them at the lood. Sub-acid sarcasm lurks in the opening sentence of the first notice of the Academy: "As far back s memory reaches, the yearly show at the Academy has been pronounced by a majority of critics to be 'on he whole below the average,' though, if the depreciaion be just, what this mysterious average must long ago have sunk to, it would be hard to say." 'Twas ever thus.

* * * *

Those notices are illustrated, and the pictures chosen or this honour are "Convocation," by H. Stacy Marks —a solemn assemblage of big-beaked birds in udicrous attitudes; "The Princes in the Tower," by J. E. Millais; "Dutch Galliot Aground on a Sandbank," by E. W. Cooke; "The Première Communion, Dieppe," by P. R. Morris; "To Our Next Merrie Meetynge," by J. Watson Nicol; "Evening"—a girl eeding five great dogs—by R. Ansdell; "One of the Last Lays of Robert Burns," by Mrs. E. M. Ward; "A Removal of Nuns from Loughborough Convent," by P. H. Calderon; "The Gods and Their Makers," by E. Long; "The Timber Wagon," by C. E. Johnson; "School Treat," by Eyre Crowe; "Oxley Place, Herts," one of F. Goodall's cattle-and-water pieces; "Hercules and Lichas," sculpture by W. Tyler; the last of the "Road to Ruin" series, by W. P. Frith, showing a dissolute young man locking his attic door preparatory to "discharging his own debt-o'-natur" with the hefty pistol obtrusively in evidence on a table; "Dirty Weather on the East Coast," by J. W. Oakes; "Childhood in Eastern Life," by J. B. Burgess, one of those elaborately stage-managed Oriental set-scenes which only a Frenchman can render tolerable; "Psyche," by E. M. Busk: "All Among the Barley," by E. H. Fahey; "Eventide: A Scene in Westminster Union," by Hubert Herkomer —one of H. H.'s over-emphasised studies in wrinkled senility; "Loot," another Eastern study, in this nstance by J. E. Hodgson; "Store for the Cabin," one of Colin Hunter's charming little sea-pieces; "Cupboard Love," a humoristic bit of genre by J. C. Horsley; "Pompeii, A.D. 79," by A. Elmore, which might have been dated 1879 with about seventeen hundred and ninety-nine years less anachronism; "The Time of Roses," by Marcus Stone; "A Social Eddy—Left by the Tide," by W. Q. Orchardson, who shows all the ladies being led out save one, who is left blooming alone, save for a couple on a settee who are obviously but not distinterestedly wishing that she had had better luck; "Sympathy," the best-known of Briton Rivière's celebrated "baby and bow-wow" series; "The Cornish Lions," by J. Brett; "An Ambuscade: Edge Hill," by Seymour Lucas—Puritan soldiers on a country road being fired on from a distant thicket; C. B. Birch's vigorous statue of a man who has stolen an eaglet which one is led to infer that the parent bird is trying to recover; and J. F. Pettie's Rebellion-period scene of "The General's Headquarters."

* * * *

It is rather a long list, but it recalls many interesting names, and several pictures that at least were esteemed in their day. Other names of note that are mentioned in the text are Alma-Tadema, who was even then commended as "the most enthusiastic of antiquarians"; Sant, Ouless, Watts, Armitage, Adrian Stokes, Peter Graham, Boughton, Josef Israels, Louise Jopling, Sir John Gilbert, Albert and Henry Moore, E. Crofts, F. G. Cotman, W. L. Wyllie, T. F. Dicksee, R. W. Macbeth, Alfred Parsons, E. J. Poynter, G. Clausen, E. F. Brewtnall, Andrew Gow, W. B. Richmond ("the best of his portraits this year, and the best we have seen from his hand for some time, is that of the late Sir George Gilbert Scott, R.A."), J. W. Waterhouse, Alice Havers, Charles Gregory, Yeend King. Most of these have "made good." Most of them, alas, have gone West; but one or two are exhibiting in this year's Academy! More power to their palettes, and hearty benedictions on their good grey heads! Mrs. E. M. Ward, I see, is now publishing her "Memories" in an evening paper.

* * * *

Some of the lions of those days may have turned out in the sequel to be lesser specimens of the genus *felis*. Here is a list of those who at that date were thought to be big enough for inclusion in a series of "Living Artists": E. M. Ward, R.A.; Sir Francis Grant, P.R.A.; F. Leighton, R.A.; T. Faed, R.A.; Sir John Gilbert, R.A.; Vicat Cole, A.R.A.; W .C. T. Dobson, R.A.; P. H. Calderon, R.A. (Philip Hermogenes); G. F. Watts, R.A. Only one under the degree of R.A., you are to observe. In each case a portrait and an autograph are given; and a finer collection of whiskers "cut saucy" or "trimmed fancy" was never got together. For Mid-Victorian "face-fungus," as the late Frank Richardson called it, was just then running into riotous exuberance. Lawn-mowers and safety razors were thereafter in passionate request, to the unspeakable relief of portrait painters, and to the despair of caricaturists. And the autographs! As they are mostly careless and illiterate-looking scrawls, they are no doubt "eminently artistic."

* * * *

Late in the volume, there is added to the Academy notices, as a kind of afterthought, an article by Mr. F. Ingress Bell on "The Architectural Drawings at the Royal Academy Exhibition." He broaches some interesting ideas. An exhibition, he writes, while it does show the works of the painter, the sculptor, and the engraver, "does not, and from the nature of things cannot, exhibit, in the same sense, the works of the architect. A sculptor does not exhibit sketches for statues, although he might with greater reason do so than the architect who exhibits technical and semi-conventional drawings of his buildings. A picture is painted and hung on the walls. A statue is modelled and placed on its pedestal. But a building to be properly seen must be seen *in situ*. Its effect cannot be expressed upon paper." Startling discovery! But it would have to be considerably modified before one could accept it as axiomatic. He holds, further, that "a new building—and Academy drawings always give the latest architectural thing out—whatever its merits may be as a work of art, will not bear a faithful representation while new. The crude contrasts between brick and stone, and slate or tiles, are at first, and for years remain, more or less unpleasant. One must be content to wait for the softening and harmonising influences of time before it is a fit subject for portraiture, although, in the actual building, its size, proportion, and promise may be felt. Now, an Academy drawing is nothing if not attractive, and a desire to make it attractive has led to every form of pictorial misrepresentation. The pen-and-ink sketches now so fashionable are no doubt clever, but clever at the expense of all architectural truth; and in the water-colour department the 'agony is piled on' until the effect is that of—and in many instances inferior to—the manufacturer's show-card." With most of these dogmas I am in vehement disagreement. Mr. Bell seems to misconceive the position.

DIOGENES.

CORRESPONDENCE.

The Ministry of Reconstruction's Printed Letter, April 10, 1918, *and New Building Works, Form "A."*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—On April 13 we, with others in the profession, received the above letter and Form, of which we enclose a copy for your perusal. At first we were not inclined to treat the matter seriously, but after making further inquiries we found that in the interests of architects and clients alike it could not be ignored.

Upon approaching clients who have notified us at varying times during the war to the effect that "they intended to build after the war," we find that most of those whose ideas as to proceeding have not materially altered with the progress of the war, discredit the necessity for making the application, and generally are inclined to look upon the matter as a device for committing them to something which it is unnecessary, if not impossible, to settle at the present time. It appears strange that, after more than three and a half years of war, the most critical period should have been chosen to issue the notices, and still more so that May 6 (which allowed only three weeks) should have been given to complete the mass of work necessary for approaching clients and providing, even approximately, the quantities of the various materials which it is anticipated will be required in the buildings contemplated. Further, upon application, we find that the special form required for buildings "which will be erected under the supervision of, and for, a County or Borough Council, or an Urban or Rural District Council (Form b)" will not be available for some three weeks to come.

We venture to say that the returns made under these conditions will be valueless for their purpose, and therefore suggest that the Ministry be asked by the various architectural societies, and all who have received the letter, to make an announcement in the public Press to the effect that all persons who at present intend to proceed with building schemes after the war, should make the necessary application for the materials, etc., and allowing a reasonable time for doing. This would result in many who have profit by the war and who have not even thought of consu ing an architect, or even formulated any plans beyo an intention to spend some of their war profits building, giving preliminary instructions forthwi and thus serve the double purpose of furnishing t Ministry with a more or less sound basis to work up and also indirectly benefiting the architectural pr fession, which, without exception, has suffered mo acutely than any other section of the communi through the action of the Ministry of Munitions virtually closing down 90 per cent. of the practices the country some three years before it was consider necessary to even curtail any of the "luxury" trade

The architect is obviously the last man likely to in a position to furnish the statistics necessary un the unknown client has been publicly notified of t necessity for making an application in his own intere and thus disclosing his after-war intentions. In t meantime, the official date for returning the inform tion has passed, and we have only been able to provi particulars of about 20 per cent. of the buildings know to be required, and we believe this is the gene position with regard to these returns.

G. B. AND S.

P.S.—We have forwarded a copy of this letter to t secretaries of the Royal Institute of British Archite the Society of Architects, and the Master Builde Association, in the hope that through joint action t matter may be reopened and a reliable return th obtained.—G. B. AND S.

THE PLATES.

R.I.B.A. National Housing Competition Design

WE illustrate on the four single-page supp mentary plates in this issue the first-premiat designs in the Liverpool and Manches area of the National Housing Competitions. critical article on the competitions generally, by C. H. B. Quennell, F.R.I.B.A., appeared last we With regard to the designs now illustrated, that Class A, by Mr. E. D. North, F.R.I.B.A., is an in resting essay in the country cottage manner, thou it seems hardly appropriate to modern conditio and requirements. As Mr. Quennell pointed out, t wavy lines of the roof would be badly mismanag without proper architectural supervision—wh might be lacking under the Government's project scheme of building operations. The two desig which come under Class B, by Messrs. Briggs a Thornely, are conveniently and economical planned, but the multiplicity of gables gives t elevations a rather restless appearance. The desi in Class C, by Messrs. Halliday, Paterson, a Agate is also well arranged on plan, but the doub gable feature in the centre of the elevations, with raised fragment of the longitudinal roof-ridge, not particularly happy, and would involve structu complications best avoided. The designs for bungalow, Class D, by the same architects, a simple but pleasant little conceptions that wou lend themselves readily to standardisation and concrete-block construction.

Santa Maria della Salute, Venice.

The church of Santa Maria della Salute, sho by this reproduction of a fine drawing by the la Captain Gascoyne (concerning whose work a n appears on page 224), was designed by Baldassa Longhena, a pupil of Palladio, and was erected commemorate the cessation in 1630 of the gre epidemic of the plague, when the city of Venice lo 46,000 of her inhabitants and 94,000 perso perished in the lagoons.

PRACTICAL ADVICE TO A HOUSING AUTHORITY.*

BY T. SUMNER SMITH, M.Q.S.A.

THE housing problem which you will have to grapple with immediately on the conclusion of war is not the same as that of pre-war ays. Whereas prior to the war your problem in ie main was one of dealing with congested areas, nd mapping and laying out areas for future deveopments, at the conclusion of war you will have to rovide for a great shortage of housing accommoation; and there are factors incidental thereto that ill have to be taken into consideration.

I propose to treat this subject briefly under three ain heads, namely: (1) Demand, (2) supply, (3) ays and means. The demand will be of a twold character: (a) Additional houses, (b) demolion and reconstruction of insanitary areas.

The Demand for New Houses.

Dealing with additional houses, you will first ave to ascertain the tvpe or the number of types iat will be necessary and the minimum requireients of each. Your plan should be to collect data nd then pass them on to experts, who will devise or you a scheme embodying the minimum requireients with the necessary variations and adjustients to suit each particular case or area you proose to deal with.

To some extent the number of houses required is nown. At least, the Local Government Board ave requested local authorities to submit to iem estimates of the shortages in their respective ocalities. But that is only one phase. It is the ype or kind and the number of each you will be alled upon to determine. The selection of sites nd the laying out of these sites will bring with iem roads, drains, lighting, water supply, and ransport. The laying out of these sites will have o embrace the provision of social amenities: pleaant aspect, facilities for shopping, amusements, ecreation, and devotional worship.

One aspect of the problem that will have to be iken seriously into consideration is the better proision of facilities for doing household work. Many omen are now engaged upon work away from their omes and are likely to continue in such occupation; o some arrangement will probably have to be made hereby the bulk of the household work, laundry, c., can be done elsewhere. Meals may have to be repared outside by municipal kitchens. Even a elephone and a vacuum cleaner may have to be istalled in each home in the near future.

The problem will differ in being urban or rural, nd in some cases in accordance with the customs of ie locality. But the point you will have ever present i your mind is that, although you are building for nmediate requirements your work will largely be ast in the future—you will be providing and planing for at least three generations ahead. It is not s if you could renew and improve with every change f fashion.

Your work then lies along the lines of experiment. ou may have to formulate and devise many schemes efore you get one to conform to the demands that ill meet with the approval of all parties conerned.

Whatever scheme you devise or ultimately decide pon, the pivot upon which it will centre is the conomic rent. That opens up a vista of problems self, inasmuch as there are no data as to the cost f housing accommodation in the future. On the other hand, there is, in a sense, an economic rent in operation to-day; this is dealt with later on.

Except that the demand may be more insistent, and the need more urgent, the question of demolition and reconstruction of insanitary areas is the same as yesterday.

After you have decided upon your scheme, your next consideration will be how best to meet the demand. The demand for houses immediately peace is declared will be such that the supply cannot be left to the haphazard methods of pre-war days. It could not be met in that way. Therefore, some organised and systematic method of supply is essential.

Methods of Supplying the Demand.

There are three ways by which the supply may be undertaken. There are (a) National undertakings (b) municipal undertakings, (c) private undertakings. It will be for you to determine whether you will apply one or more or all of the three methods of supply, and to study the claims and advantages of each system before coming to a decision.

As previously mentioned, there is likely to be a shortage of materials and labour, but to what extent is unknown. There will also be a big demand for materials and labour for necessary repairs and decorations, and very likely for buildings other than houses, which will have to be taken into account.

The Ministry of Reconstruction possesses, or ought to possess by now, data concerning the materials and labour needed to cope with a given number of houses. Further, it is doubtless known whether this material and labour will be available. The Ministry should so organise the supply of materials that delivery could be assured without undue delay and inconvenience. The prices of materials could be fixed on cost plus reasonable profit, by the guarantee of "orders for goods." This should be an inducement and bait to the manufacturers; for we may take it they would then be assured of running their work and plant at a uniform full time. By these means, a national undertaking effectively carried out would have great advantages over any other system.

Another point not to be lost sight of is that the building trade differs from other trades inasmuch as it is affected by the seasons of the year. You can build more economically in spring and summer than in autumn and winter, and the wages of the workmen are greater in the two former seasons than the latter. Again, there is less unemployment in spring and summer than in autumn and winter, as the trade is at its highest flow in the two former and at its lowest ebb in the two latter. Now, in consequence of the war, or because of the shortage of labour or better industrial organisation, workmen have demanded, and are receiving, facilities for earning the same wages in winter as in summer, whatever the output may be. By way of illustration, say a bricklayer works ten hours per day in summer and is paid accordingly. there are certain times in winter when he cannot work more than eight hours a day, but yet he receives ten hours' pay. Whether this will continue after the war is a question that has to be taken into account. Again, whether the fluctuation of employment will be tolerated after the war as it was in pre-war days is another point that will require attention. Would a national undertaking eliminate this fluctuation? At least, it could mitigate it somewhat by organisation and by arranging the work so that it could be carried out at all seasons of the year with little or no loss of time or wages to the workmen.

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* Extracts from an Address to an Authority contemplating Housing evelopments.

Municipal authorities, by an arrangement amongst themselves whereby they pooled supplies of materials, would be able to do nearly as well as a national undertaking.

Private enterprise would require to be organised and a comprehensive plan of campaign carefully mapped out before it could hope to compete on equal terms with a national undertaking.

Something might here be said as to the relative value of work that could be performed by each undertaking. True, all national and municipal undertakings tend to increase the cost inasmuch as they build substantially and well. But given the same condition, there is no reason why this should be so, especially since the working cost of national and municipal undertakings ought to be considerably less than 10 per cent.

Ways and Means.

We come to the final phase of the subject: "Ways and Means." The first question to be decided is, what shall be the economic rent? Can you comply with the demands and build houses embodying these requirements to ensure health and some degree of comfort to the occupants at a rent that they can afford to pay and with the hopes of a reasonable return on the outlay?

An increase in rent beyond that paid to-day for the same conveniences would tend to increase the rent all round. This would mean increasing the value of existing property by millions of pounds. In that case there would probably be considerable discontent and unrest.

On the other hand, if rents are not increased, then you will have to consider how the increased cost can be met. If in the form of a subsidy or grant-in-aid from the Exchequer, then it will become a national affair, and the problem would then be not one of providing houses only but a political one.

This question of rent is the pivot upon which the thing revolves. An economic rent may be said to be that which a person can afford to pay out of his weekly earnings after having made provisions for the other necessaries of life. Your problem would be what kind of a house could you provide to meet the case—a house that would give a minimum of conveniences. It is very uncertain whether you could build a house with a standard minimum of conveniences that would at once satisfy the demand at an economic rent and give you a reasonable return on your outlay.

A national undertaking could build houses and let them at a present-day rent by providing the balance for the extra cost of building out of taxation; or make grants-in-aid to municipal undertakings out of taxation to cover part of the increased cost, the municipal authorities providing the balance out of rates; or it could subsidise private undertakings. It would require some control and a guarantee that the houses were well and substantially built; and probably all schemes would have to be submitted and approved of by the Government. Further, it would require some assurance that the demand for a certain number of houses would be met within a reasonable time.

A national or municipal undertaking could let out the work on contract; and it would only to a certain extent cripple private enterprise—speculative building—if such private undertakings were subsidised by the Government.

In conclusion, the only suggestion I would make is that you collect all the data you possibly can and prepare a prospective scheme. Lastly, get ready your organisation. You may have to be ready to proceed with the work at a moment's notice.

EXHIBITION OF WATER-COLOURS B THE LATE CAPTAIN CHARLES GASCOYNE.

AMONG the many sad losses sustained by th architectural profession as a direct result of th war, none is more to be deplored than that of th late Captain Charles Gascoyne, who, after bein wounded and taken prisoner, suffered the cruel fat of dying in German hands. Captain Gascoyn occupied a prominent and in some respects uniqu position among modern architectural draughtsmen for, although his bent was essentially architectura and none was more constant in whole-hearted devotio to the Mistress Art, his artistic abilities were far i excess of those required in the delineation of archi tecture *per se.* In addition to an uncommon gift o architectural draughtsmanship, he possessed all th attributes of the landscapist; and as a water-colouris pure and simple he could have won for himself, had h been so inclined, considerable reputation and succes That he elected otherwise was a distinct gain t architecture.

Captain Gascoyne was a prodigious worker. A some time or another he must have made perspective and other drawings for most leading architects of th day; and the walls of the Academy bore regula testimony to the quantity and quality of his outpu He was an enthusiastic traveller, and he never faile to record with his brush the impressions that h received during his travels—whether of buildings or o natural scenery.

A number of his drawings have been selected b Mr. Robert Atkinson for exhibition in the rooms of th Architectural Association, in Bedford Square, wher they are now on view. They include a wide variet of subjects—from France, Belgium, Spain, Italy Sicily, and Morocco, as well as the home country— and, on the whole, the selection may be said to sho the artist at his best. All display that fine sense o composition and of colour values that we had come t associate with the work of Captain Gascoyne. Th subjects mostly have a dominant architectural interes but some unusually fine landscapes and seascapes ar included. Captain Gascoyne possessed in a remark able degree the power of seeing his subject as a whol Hence his work is invariably distinguished by breadth of treatment that is singularly restful to th eye; there is nothing to jar or to disturb; though, a several of the drawings reveal, he is capable of th right dramatic emphasis when the occasion requires i

The drawing of Santa Maria della Salute, Venice reproduced on the double-page plate in this issue, i one of those on view. No building, perhaps, has bee more frequently sketched and painted than thi famous church; yet there is something quite fres about Captain Gascoyne's rendering. We see th building from an unusual aspect and under atmo spheric conditions quite different from those in whic it is generally shown. This is typical of Captai Gascoyne's unfailing capacity for avoiding th hackneyed and the commonplace. Nor was thi avoidance studied and deliberate: it was natural an spontaneous.

The pictures on exhibition are mostly to be sold— for the benefit of the artist's widow. Some hav already been bought up, but others still remain to b disposed of. Architects and all others who ca appreciate a rare artistic talent should visit th exhibition (we understand that it is to remain open few days longer), and take advantage of this oppor tunity of acquiring some example of the work of thi gifted artist, who, in the service of his country, ha been cut off in the full vigour of a career of hig achievement and higher promise.

LEGAL.

Iodel By-laws Unreasonable and Unworkable.

he Governors of Repton School v. Repton R.D.C.

;. Court of Appeal. Before Lords Justices ford, Warrington, and Scrutton.

is was an appeal by the plaintiffs from lgment of Mr. Justice Bailhache, who that certain model by-laws adopted ie Council for the regulation of addi- to the existing buildings, under the mstances of the case, were unreason- and unworkable and could not be en- d against the plaintiffs.

rd Justice Pickford, in giving judg- , having stated the facts, said the was an important one, as it affected eat number of by-laws throughout country. He agreed that by-laws, ially those of public bodies, should pproached from the point of view of lding them if possible and should be volently interpreted, but, still, they be reasonable. He, however, was of on there were grounds for contend- that, even as applied to the three- addition, the by-law was unreason- The difficulty arose in a great ure from the fact that the by-law was of a set of model by-laws framed in of the meaning of "new building" in Public Health Act, 1875, and now ap- to the much-extended meaning of words as defined by the Public th Acts Amendment Act, 1907. did not seem to be material the by-law was in existence at time of the passing of the Act of As the local authority allowed it to nue without alteration after the ng of the Act, it must be considered the same point of view as if it had made after the Act was passed. It ed to have been quite appropriate to tate of things existing under the Act of Under that Act an alteration of an ing building might be of such a re that the result was to make the ed thing a new building, and it was ble that there might be an addition so plete and self-contained as to be itself v building, though connected with one ously existing. In either case the w providing for ventilation space was reasonable, and if the new building, its position relatively to the building r's boundary, or to other buildings, om any other cause, were such that s not possible to comply with the re- ements of the by-law, the building l not be built except at the risk of its demolished. Such an addition as of the three rooms in the present case d not have been a new building under Act, nor would the addition of the windows or porch or servants' hall. by Section 23 of the Act of 1907 every of these additions was of itself a new ling for the purpose of by-laws made r the Public Health Acts, and there- By-law 12 and By-laws 11, 13, and pplied to them, unless there was some- in the Act or the by-laws to prevent application. It was clear that in the of a bay window or a porch, the very re of the addition made it impossible he owner to comply with the require- s of the by-laws as to the space at the and, therefore, there was, in effect, a ibition against the making of any additions. He thought that the by- in question applied to all additions h were "new buildings," as defined by Act of 1907, and as applied to such additions it was so unreasonable as to be *ultra vires.* He came to that conclusion with regret, as the by-law was one which dealt with a very important subject relating to air space and ventilation. It might be that the framers of the Act of 1907 did not consider the effect of the new definitions on the old by-law, or they might have relied upon local authorities making any necessary amendment in the by-laws. He saw no reason why the by-law should not be amended in such a way as to secure its objects.

The appeal would be dismissed with costs.

The other members of the Court concurred.

NEWS ITEMS.

Cathedral Architect Joins Up.

The architect of the Liverpool Cathedral (Mr. Gilbert Scott) has joined the forces, and is posted to the Royal Marine Engineers. His new duties will permit him to exercise an adequate supervision over the Cathedral works at present on hand.

Incorporated Institute of British Decorators.

At the annual meeting of the Incorporated Institute of British Decorators, held on May 7 at Painters' Hall, London, Mr. J. Higson, of Manchester, was unanimously elected President, and said he appreciated the honour the more as he was the first provincial member to be raised to the Chair. Notice was given of a motion to give the presidency alternately to London and the provinces.

Liverpool Architectural Society.

This Society held its annual meeting at the Rooms, 13, Harrington Street, Liverpool, the President (Mr. E. Percy Hinde) and retiring members of the Council being re-elected. The report stated that the Society had "now completed seventy years of useful service, and is the oldest provincial society in England." A fund of £50 was being kept available for opposing the proposed destruction of the St. George's Hall podium.

Mr. James Townsley's Estate.

Mr. James Townsley, of Wavertree, Westbourne Avenue, Hull, managing director of the firm of Messrs. Dawber, Townsley, and Co., Ltd., slate importers and contractors, the founder of the National Federation of Slate Merchants, and the hon. editor of the "Slate Trade Gazette," a member of the Hull City Council, who held many other local offices, and whose death occurred on October 2 last, left estate valued at £29,703 4s. 1d., with net personality of £4,714 0s. 5d. Mrs. Emma Victoria Townsley, his widow; Lieutenant James Cyril Townsley, of the Royal Engineers, his son; and Mr. George Herbert Wray, Yorkshire, slate merchant, are the executors.

Wakefield and District Master Builders' Association.

At the monthly meeting of this Association, held at the Bull Hotel, Mr. Samuel Hall (President) made reference to the death of Mr. Robert Elvey (of the firm of Messrs. Elvey and Steel), the first member of the Association to be killed in the war. It was reported that the bricklayers had lodged an appeal with the Northern Centre Building Trades Local Conciliation Board respecting their application for an increase in wages, and that the labourers were also appealing to the Local Conciliation Board for a further advance. The meeting was engaged for some time in discussing wages questions and other matters affecting the trade arising out of the war conditions, and the difficulties under which the building trade is being carried on in consequence.

Reinforced Concrete Pitprops.

The present scarcity of timber is seriously affecting mining operations owing to the greatly reduced supply of pitprops, and the use of reinforced concrete pillars is suggested. An interesting and instructive series of tests have been carried out at the Manchester College of Technology in the presence of a number of representatives of collieries. Concrete props reinforced on the Keedon system were subjected to crushing tests. They withstood in one case up to twenty-six tons, and in another to thirty-four and a half tons. The props were 4¾ in. by 4¼ in. section, so that the ultimate strength approximated to that of pine. It was shown that after the ends of a concrete prop had been crushed the prop could be cut shorter and used again without risk.

Nottingham and Derby Architectural Society.

Mr. H. Gill presided at the annual meeting. Lieut.-Colonel H. Walker, a former president, and Mr. R. Booker, who joined the Society in 1862, were elected honorary members. The Council regretted to record that three of their Associates had been killed in action, viz., Lieutenants E. H. Brown, Wallace Smith, and K. V. Weston. The Society was included in the North Midland Area for the National Cottage Competition, and the President appointed to act as one of the assessors. Two of their members gained successes in this competition: Mr. F. W. Gregory and Mr. C. A. Broadhead. The following military distinctions were recently awarded to members: Major C. H. Calvert and Lieutenant J. Wollatt, Military Cross; Lieut.-Colonel T. C. Howitt, the D.S.O. The President announced that he was endeavouring to obtain the loan of the late Captain Charles Gascoyne's paintings for exhibition in Nottingham.

The Architects' Assistants' Welfare Committee.

A new permanent committee is being formed, which is to be known as the Architects' Assistant's Welfare Committee. The R.I.B.A. has elected Mr. A. G. R. Mackenzie as its representative. The A.A. has elected Mr. H. H. Wigglesworth, and the Society of Architects Mr. R Goulbourn Lovell. As its title conveys, the Committee will be concerned entirely with the welfare of architects' assistants, and it is therefore most important that members of the profession working in that capacity should be well represented on the Committee. It is proposed that five architects' assistants should be elected to serve, and a meeting for this purpose is to be held at the Architectural Association, 35, Bedford Square, W.C.1, on Thursday, May 16, at 5.30 p.m. It is hoped that all architects' assistants who are able to do so, will attend the meeting, when the suggested activities of the Committee will be fully explained. Any architects' assistant who would be willing to serve is requested to send in his name before the meeting to the Secretary, Mr. F. R. Yerbury, at 35, Bedford Square, W.C.1.

REINFORCED CONCRETE SHIPS.*

BY A. ALBAN H. SCOTT, VICE-PRESIDENT SOCIETY OF ARCHITECTS.

THE steel shipbuilder looks upon reinforced concrete as a very complex matter, chiefly owing to the large number of small rods and the overlap required to get continuity, but in comparing the form of jointing in reinforced concrete work to the riveting in steel ships and the caulking required one would perhaps be justified in thinking that it might be impossible to get a comparatively water-tight ship with steel plates, when it is considered that for a ship of, say, 1,000 tons dead-weight for the hull alone there would be approximately 2,500 separate sheets and angles of steel used and somewhere in the neighbourhood of 110,000 rivets. The approximate number of bars in a reinforced concrete vessel (same dead-weight) would be 52,000.

As in all new forms of construction, a large number of suggestions are being put forward for the combination of reinforced concrete with other materials.

Serious proposals have been put forward, of which the following are typical:—

> The bottom and upper decks to be constructed in reinforced concrete with connecting frames of the same material, but the sides of the hull formed of steel or wood or a combination of these materials.
>
> For constructing certain portions of the vessels with unit parts by applying slabs of concrete (as plates of steel are applied), at the same time endeavouring to obtain monolithic construction.
>
> To form a laminated hull laid with steel reinforcing.

These various alternative methods of construction can only be evaluated by long periods of test under service conditions. It is suggested that the method of applying the concrete in the form of a plaster or by the method of depositing it in very thin layers will *not* be continued for a lengthy period. Mr. Campbell Holmes stated in his book that the quality of cement is not often tested in the shipyard, and "it is not unlikely that where small quantities are indirectly supplied much of it may be inherently bad, which may not be discovered for years afterwards."

The testing of materials for reinforced concrete ships is of extreme importance, and the Concrete Institute's report on this subject should be carefully studied. The whole of this report is applicable to shipwork, except that the maximum size of the coarse material requires, in the opinion of the author, to be reduced to $\frac{3}{8}$ in. Additional tests are desirable as to the impermeability of concrete, and also as resistance to shock.

Although a large amount of experimenting and testing on reinforced concrete has been carried out, much remains unknown when compared with ascertained data from research work undertaken on other materials, but, no doubt, now that the shipping world is taking a practical interest, the money and opportunity will be found to conduct research work on proper lines, to add to our knowledge of the nature and properties of steel and concrete combined, as well as for concrete as a separate material. After these results have been obtained it will be time to consider more seriously the question of reducing the weights of reinforced concrete hulls. Until additional research is undertaken, however, it seems to be inviting disaster to use a very thin concrete of very rich mixtures without more knowledge of the true properties of one of the most important materials we are dealing with.

The necessity for checking the strength of the concrete immediately after placing in position is so important that probably the artificial seasoning of concrete specimens by steam under pressure will have to be resorted to in ship construction, as by this means any weakness can be more quickly discovered. Much work remains to be done before this acceler
"ageing" test can be considered to a
standardised data for guidance.

The impermeability of concrete is
greatest importance, and what may
gained on this point by using the r
mixture might be all sacrificed owin
the hair-cracks referred to elsewh
therefore, rather than use at the pr
stage a rich mixture to obtain the re
desired as to impermeability, it woul
better for the moment to devote some a
tion to obtaining a material which cou
applied to the surface of the concre
the form of a wash of specially prep
tar or other bituminous material; if a
of this description be properly applied
permeability for many years should
secured. Even if the whole of the ext
surface of the vessel is not treated in
way, it would certainly be advisabl
treat that portion subjected to wea
and tide.

The external centering for reinfo
concrete vessels will eventually be r
movable in fairly large sections, and
plant lay-out for the concrete shoul
arranged in conjunction with the
necessary for easily removing the ext
centering, by overhead gearing or by
on the ground level, so as to take it
of the boat while she is being launc
after which the centering can be run
position again ready for the next stan
boat to be constructed. The inte
centering would be moved by over
gearing and stored in a convenient
tion, also ready for the next boat.
have up to the present moment ga
little experience as to whether end-lau
ing or broadside-launching is most ad
able for vessels constructed of reinfo
concrete. It might even be necessar
construct these boats in a dry dock if
size comes approximately to 5,000 or 6
tons dead-weight. The objection, a
rule to using dry docks for the purpos
construction is the comparatively s

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* Extracts from a Paper read before the Concrete Institute, on Thursday, May 9

t of tonnage in relation to the capital diture on the dock, but the speed of ucting reinforced concrete vessels at perly laid-out yard for standard s might justify the expense of a dry in view of the reduction of the cost he minimising of risks involved in oating of these vessels.

h this new form of construction for s the temptation to depart from true lines must be resisted. For many investigations have been carried on ertain the lines which give the least ance to a ship passing through water, because a different material is pro- to be used for certain boats it is sub- d a great mistake would be made by ting from proper and regulated lines ship in the expectation of securing mies in construction in reinforced ete. Safety and efficiency in run- must be the first considerations. To t from proper ship lines would in- extra expenditure on the running which would quickly neutralise any g on the capital outlay of the ship constructed. No doubt it would be that if five or six boats were built the same set of centering there would additional cost by having what is n as "circular circular work." It been stated that it is more difficult to e reinforcement into position by fol- g the true ship lines than if straight are adopted. The obvious reply to s that it is more difficult to construct storeys to a building than lower s, therefore we won't have any upper s, or if it is more difficult to provide atchways leave them out.

will be found that the centering for utside of the boats can be in large , but for the interior of the boats the will have to be comparatively small, is necessary that the concrete should e "poured" from a great height. will allow the centering on one side built up as the concrete is placed in on, so that efficient ramming and ing is ensured. Wherever possible ete should be proceeded with as one lete operation, thus requiring day night work with careful organisation. steel work should be as far as possible leted with the outside centering to ide of the internal beams and frames d in position before the concreting mmenced. With judicious arrange- of the internal strutting this can be ved, and where it is necessary for the ete operation to be temporarily sus- ed special care is required and special ution rods must be inserted at such ion. It has not been found advisable se neat cement grouting at these s in the concrete.

e proper connection and continuity ds will have very material relation to effect of vibration and shock on re- ced concrete work. Experience with orced concrete, subjected to any tional shock in land structures has st exclusively been confined to inter- ate vibration—that is, heavy cranes in ries and in certain parts of railway .

shipping construction, however, the tion may be considered continuous, the effect of such continuous vibration e adhesion of concrete and steel has yet been ascertained: it can only be ed at after a good many years of l service. It is suggested that a good deal of the vibration caused by the es and other machinery can be con- ably reduced by the introduction of al anti-vibration foundation work suitable for the plant which will be installed in a ship where one meets with the bases considerably less in size than is the case with plant of the same power in land structures. Such foundation beds would also tend to prevent the cracking of the concrete and cement work round about the machine beds. It has been proved that where travelling crane rails are put direct on to the reinforced concrete beams with only a steel plate for bedding there is a good deal of cracking away of the concrete after a period of five or six years' intermittent use, but where wooden sleepers have been introduced no such cracking away or loss of adhesion has been noticed; therefore it would appear desirable, in view of lack of knowledge on this point, that the effect of vibration in a reinforced concrete boat should be reduced as much as possible by tackling the problem at the machine beds and doing everything possible to reduce or to take up the vibration before it can attack the actual structure; possibly special packings for propeller shafts, as well as machine beds, would prove very beneficial in this respect.

It is not probable that concrete would be disintegrated by the continual vibration, but the adhesion of metal to concrete certainly might be affected, and it should be remembered that whereas some degree of plastic deformation may be expected in steel under stress, concrete, even if elastic, is certainly not plastic in the same sense as steel. There are but few real data as to the effect of shock loads on reinforced concrete; the tests carried out in Italy some years ago are interesting studies in this connection.

There are some wonderful steel ships, there are also wonderful reinforced concrete buildings: and with the joint efforts of the naval and land architects there ought to be some wonderful reinforced concrete ships.

PLANNING, DESIGN, AND CONSTRUCTION OF SMALL HOUSES.

BY FRANK BAINES, C.B.E., M.V.O.
(Principal Architect, H.M. Office of Works.)

(Concluded from page 205, *No.* 1217.*)*

Two types of concrete construction for walling have been used by me: (1) Monolithic construction; (2) block construction. The first appears to be unsuited for housing purposes, owing to the necessity of fixed shuttering, moulds, and centering, or movable moulds, while the difficulty of ensuring good workmanship and of rendering walls damp-proof has been found to be grave. The resulting surface is monotonous in appearance, even when coloured, and, although many methods of treatment have been devised, few of them have been found to be thoroughly satisfactory from an æsthetic point of view.

Concrete in blocks has certain advantages over the monolithic system. It is simpler to handle, and can be used to better advantage as a damp resister. Where 6-in. hollow concrete blocks have been used, they have been found to possess little advantage over solid blocks, as the connecting portions conduct the moisture between the outer and inner faces. These blocks have, however, been used by me in semi-permanent work, and have given fair satisfaction. The most satisfactory result, however, has been obtained by utilising concrete in walling, in 2-in. or 2½-in. blocks, with a 2-in. cavity between, secured with galvanised iron wall ties, the outer block being made with a dense aggregate and the inner block with a more porous material. This construction has been most satisfactory in one-storey buildings. If utilised in two-storey buildings, the thickness must be increased, or piers introduced where necessary.

Stone facings have been found, except in very exceptional cases, to be more expensive than brickwork, while easily worked stone is seldom waterproof. Where bricks were not readily obtainable I have used a 21-in. stone wall, which has been found to be as cheap as 9-in. brickwork. The advantage of stone, however, is that, where available, it requires little labour, and no expensive plant or fuel in its production.

Lime mortar can readily be used in house construction without detriment to the quality of the work. Only in cases where great speed is absolutely essential, and in very exposed situations, need cement mortar be utilised. Hard plasters have given every satisfaction for internal work, and made it possible to omit all skirtings.

Monolithic concrete walls for internal partitions should seldom be adopted, as they are costly and unsatisfactory as sound transmitters. Various forms of block concrete, however, have been found to be economical and rapid in construction. Where internal walls bear the weights of floors and of roofs, they may be built in 4½-in. brickwork. Other partitions, however, can be formed of 2-in. coke breeze slabs.

The construction of floors has been a problem resulting from the scarcity of material during the war, and my later practice has been to form all the ground floors in 4 in. cement concrete upon 4 in. of good hardcore, finishing the floor by a jointless impermeable flooring, picked out of many, and not involving the use of magnesite. Before such floors have been selected by me, however, they have been subjected to analysis to ascertain whether they would disintegrate by the wear and tear of soda washing, etc. Solid concrete ground floors are found to economise by reducing the height of the brickwork, and they certainly prove more hygienic than open-boarded floors.

For upper floors, where timber is not available, hollow brick or terra cotta blocks have been used, slightly reinforced between the blocks with steel tape or thin rods. They are finished off with a jointless flooring, similar to the ground floor, and, in certain instances, finished off with two inches of blue lias lime plaster, with reed reinforcement. This has given a very satisfactory floor, and saves flooring with any proprietary article. This method can also be utilised for wood joists, in which case, lathing will have to be carried out across the tops of the joists. I have found the use of monolithic concrete for floors an uneconomical proposition, neither has it been found economical to use cast slabs, supported on concrete beams cast on the site.

For roofs, I have, as yet, not entirely eliminated timber, except where flat roofs have been used, when concrete construction or hollow block flooring has been utilised. If, however, concrete is to be utilised for house construction, the problem of the flat-roofed cottage will have to be faced. What has largely prevented the adoption of this type of design in the past has been the difficulty in designing houses which answer to the æsthetic requirements as postulated by the architect. Undoubtedly a pitched roof is the better type for cottage construction, as it gives an open space between the ceiling and the outer covering, while it would be very costly to provided for such a space where flat roofs are utilised.

In dealing with this difficulty in construction of buildings other than cottages, the monolithic form of concrete construction has been utilised, where the beams and the slabs have been cast separately, and the ceiling formed on the underside of the beams. This gives an air space between the outer concrete slab and the ceiling.

One of the difficulties with concrete roof construction has been the covering to render the construction waterproof. Cement floating can be rendered waterproof when the utmost care is taken in the method of carrying out, but it is doubtful whether this can be done in large schemes, where special supervision cannot be efficiently exercised.

A thin bituminous covering (instead of asphalte) has also been utilised by me in certain instances. This has given complete satisfaction, but I hesitate to suggest it for permanent housing, where the flat roofs might be subjected to ill-usage.

When the great stringency of timber first manifested itself, timber construction for staircases was also eliminated by me, and monolithic concrete construction was used, together with a construction of concrete steps, cast on the site. Little, if any, economy resulted from this method. It was merely an attempt to overcome the shortage of timber.

PUBLICATIONS.

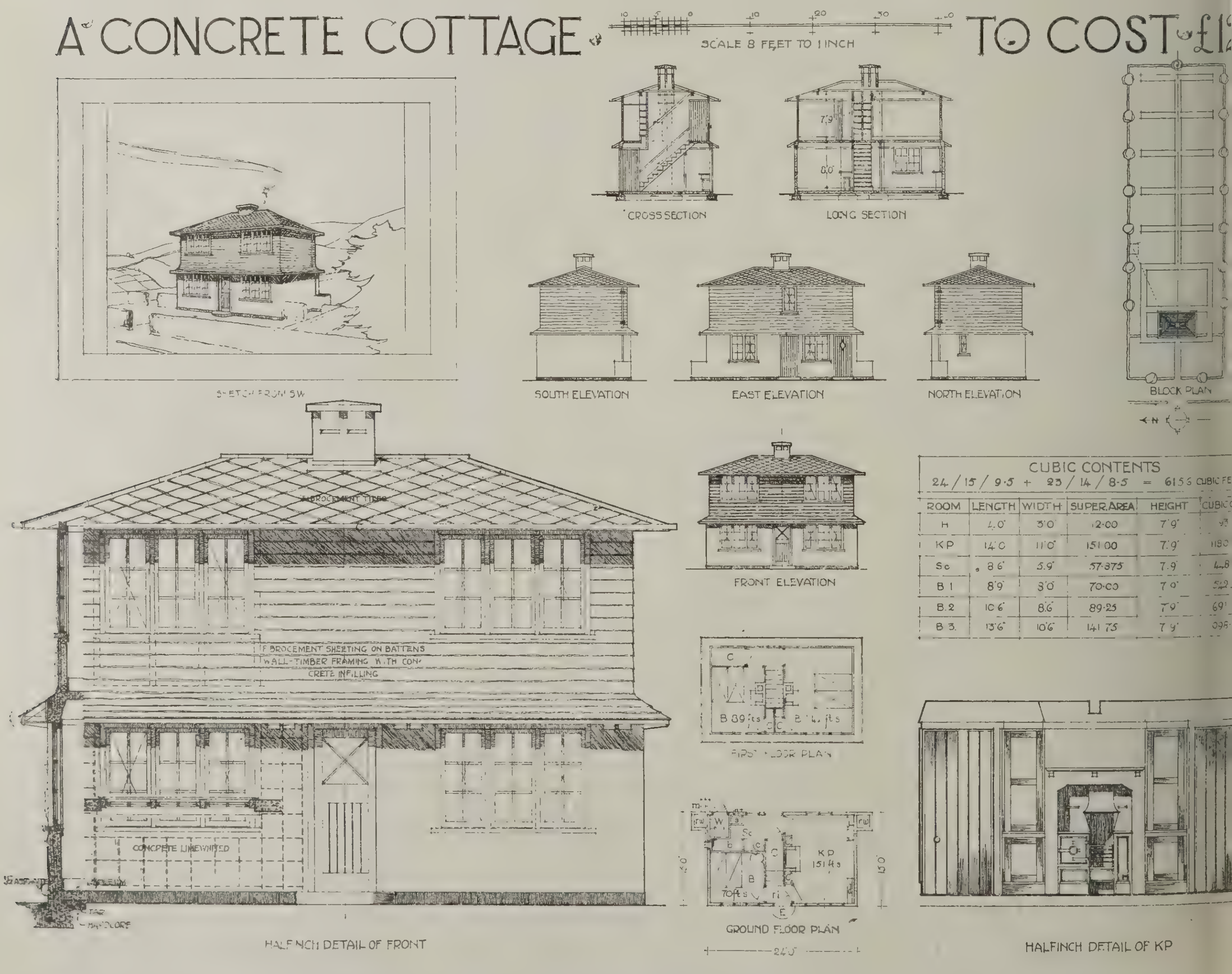
Concrete Cottages.

In our Editorial Notes last week it was shown that the cry of "No bricks, no houses," left out of account the increasing activities of the makers of concrete blocks, and the extensive application of concrete to the building of cottages. Mr. Albert Lakeman M.S.A., M.C.I., has edited, for the Concrete Utilities Bureau and Concrete Publications, Ltd., 4, Catherine Street, Aldwych, London, W.C., a most opportune book on "Concrete Cottages, Small Garages, and Farm Buildings," in which the methods and materials of construction are described in full detail. Among the many illustrations there are several that demonstrate convincingly the possibility of imparting architectural character to concrete cottages; and this quality certainly cannot be denied to the examples which, by courtesy of the publishers are here reproduced. On this point the book is quite sound. It insists that "The essence of successful design consists in obtaining good proportion both in individual features such as openings and projections, and in the whole structure, and it is only in this way that the eye can be satisfied. Elaborate ornamentation is not essential and in fact is to be avoided, because it involves unnecessary expense, and a simple building which is well proportioned w far more pleasing and more truly r sent the purpose for which the dwelli intended. Perfect symmetry is not tial provided the design is well bala but a symmetrical lay-out will invar prove cheaper than one that is unsym rical." There is ample practical guid on almost every detail of construction, the book is in every way a powerful suasive to the adoption of this ty building.

The interesting group of cottag Chepstow, designed by Messrs. D Watson, and Curtis Green, FF.R.I. (see page 229) is built of Winget co blocks.

Lockwood's Price Book.

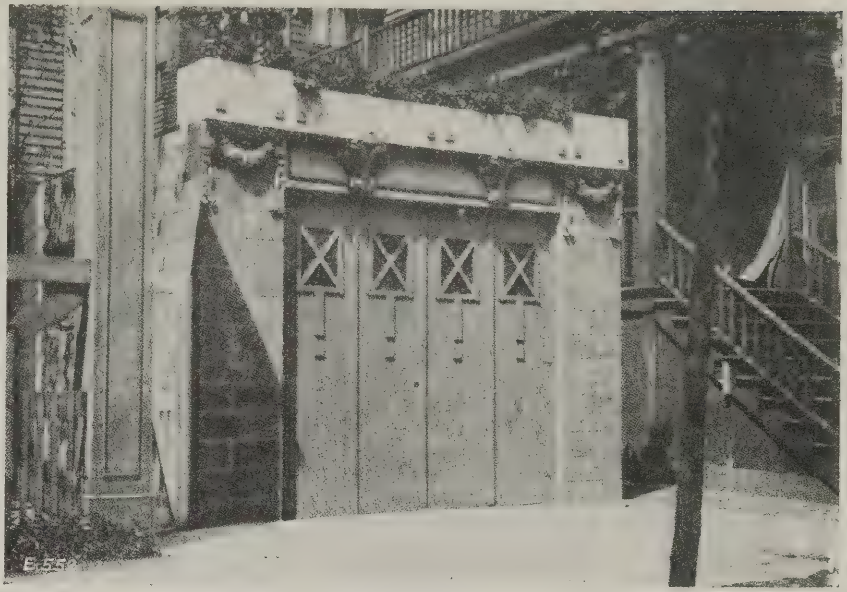
In spite of abnormal condition have had a special effect in putting into a state of flux, the price book but little of its value as a guide to est ing. Even when most stable, price by no means constant. They vary many conditions, but they vary with restricted range, and one can strik average in confidence that the limita are fairly well defined. One gets a f accurate reading of the barometer making the necessary corrections for tude. And, when forecasts are in tion, we can never dispense with barometer, no matter how fickle weather. In other words, a price bo


A CONCRETE COTTAGE
SCALE 8 FEET TO 1 INCH
TO COST £1
CROSS SECTION
LONG SECTION
7'9"
8'0"
SKETCH FROM SW
SOUTH ELEVATION
EAST ELEVATION
NORTH ELEVATION
BLOCK PLAN
N
FIBROCEMENT TILING
FIBROCEMENT SHEETING ON BATTENS
WALL-TIMBER FRAMING WITH CONCRETE INFILLING
CONCRETE LIMEWHITED
FRONT ELEVATION
CUBIC CONTENTS
24 / 15 / 9·5 + 23 / 14 / 8·5 = 6156 CUBIC FE
ROOM | LENGTH | WIDTH | SUPER.AREA | HEIGHT | CUBIC
H | 4'0" | 3'0" | 12·00 | 7'9"
KP | 14'0" | 11'0" | 151·00 | 7'9" | 1180
Sc | 8'6" | 5'9" | 57·375 | 7'9"
B 1 | 8'9" | 8'0" | 70·00 | 7'0"
B.2 | 10'6" | 8'6" | 89·25 | 7'9" | 691
B 3. | 13'6" | 10'6" | 141·75 | 7'9"
C
B 89 fts
B 14 fts
FIRST FLOOR PLAN
W
Sc
C
KP
151 fts
B
70 fts
E
GROUND FLOOR PLAN
24'0"
HALF INCH DETAIL OF FRONT
HALF INCH DETAIL OF KP

DESIGN FOR A CONCRETE COTTAGE. PERCY MAY, ARCHITECT.

(*From "Concrete Cottages, Small Garages, and Farm Buildings."*)

ll indispensable to estimating, though
ices fluctuate never so wildly. More-
er, the mass of information contained
"Lockwood" is to a certain extent
dependent of prices, to which, indeed,
me of its most useful features have but
tle relation; as, for example, the inte-
sting and valuable memoranda on pro-
sses and workmanship that precede
ch list of items in the different trades,
d the valuable matter comprised in a
pplement that makes about half the bulk
the book. This supplement contains
e text of various Building Acts and by-
ws, with an introduction, notes, cases,
d a full index, by Mr. A. J. David, K.C.,
d lists of the metropolitan district, and
etropolitan borough surveyors. Mr. R.
ephen Ayling, F.R.I.B.A., as general
itor, has done his work exceedingly
ll. In his preface he records without
mment the passing of the following reso-
ion at a meeting of the R.I.B.A.: "That
view of the extremely important inte-
sts involved, this Institute should take
tion in conjunction with other bodies to
present to the Government the serious
jections to the continuance after the
claration of peace of the present war
nditions." This we have always
garded as a rather futile representation.
is not at all likely that "the present
r conditions" will be continued for a
gle day after the declaration of peace.
vertheless, it is, for very obvious
asons, desirable that Government con-
l of supplies should be relaxed gradu-
y rather than suddenly. What is
prehended, however, is that continued
vernment control will involve preferen-
l treatment instead of even-handed and
partial distribution—that, in fact, hous-
g will for a time be permitted to monopo-
e all the available men and materials
to the hindrance of other forms of building that are equally urgent. Why was not this view explicitly stated in the resolution?

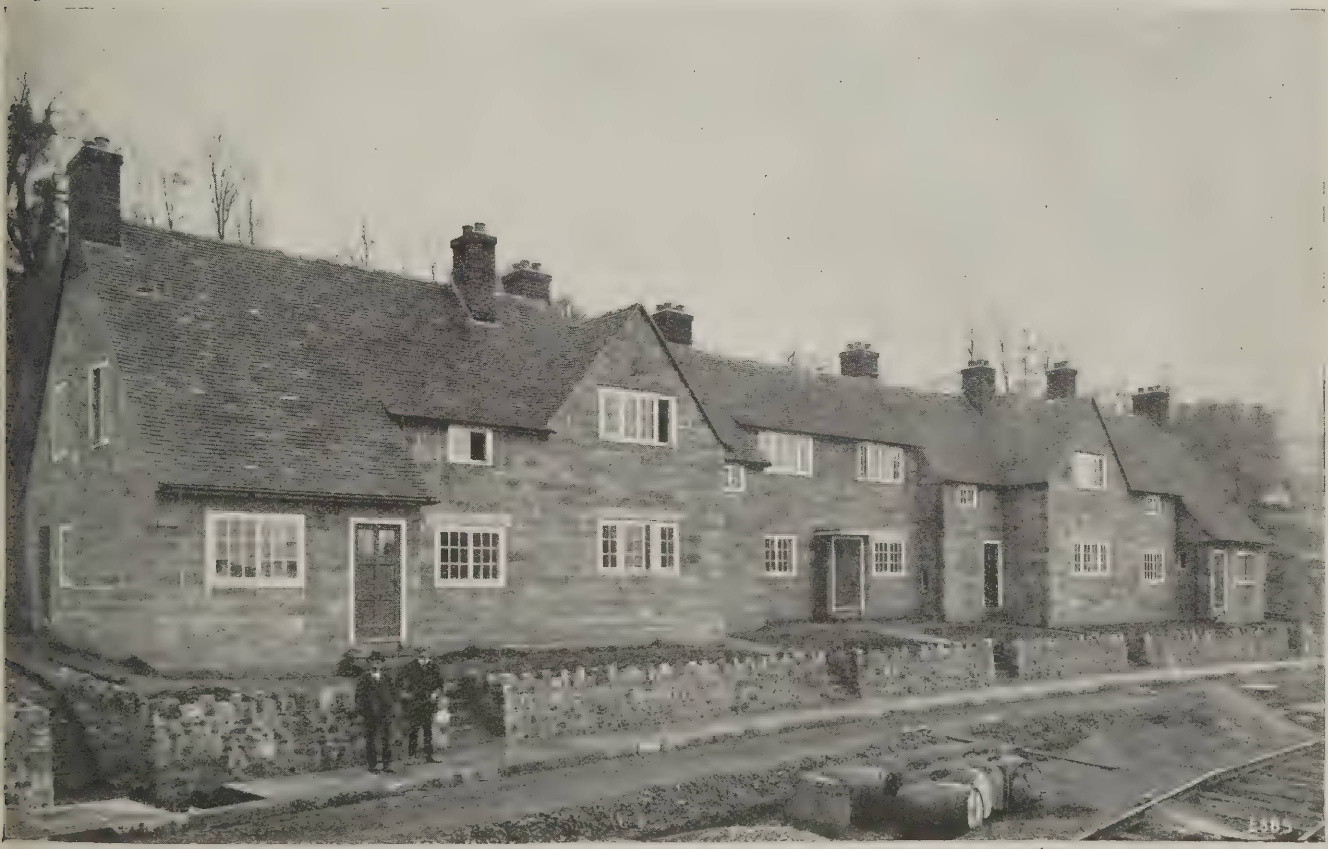


A CONCRETE BLOCK GARAGE.

(From "Concrete Cottages, Small Garages, and Farm Buildings.")

"Terms of an Industrial Peace."

In the interest of the country, it is necessary to increase production and to sell more cheaply in foreign markets. To do this are needed: New methods in the workshop; labour-saving machines; a higher degree of specialisation; amalgamation instead of competition; cheaper freights; national banks (manufacturers backed up by Government); increased output by workmen. Labour disputes must not be allowed to ruin our industrial prospects. Employers and workers need more mutual knowledge and sympathy. They should meet on common ground whenever possible, *e.g.*, for social and moral reforms; for abolition of excessive profiteering on food. The working classes must be provided with better housing, education, opportunities for healthy recreation. Profits should be limited, and



CONCRETE COTTAGES AT CHEPSTOW. DUNN, WATSON, AND CURTIS GREEN, FF.R.I.B.A., ARCHITECTS.

(From "Concrete Cottages, Small Garages, and Farm Buildings.")

the percentage of dividends restricted. Excess profits should be equally divided between the Government (for national use) and the industry (for the provision of new plant, etc.). Government should control fundamental national services—railroads, mines, etc. These reforms granted and all infringements heavily penalised, strikes should be made illegal, but an efficient machinery of arbitration would be established for the settlement of disputes.

Such, in brief, so far as we can ascertain them, are the conclusions reached by Mr. Alex. Ramsay in his very readable little book, "Terms of Industrial Peace," which is published, price 3s. net, by Messrs. Constable and Co., Ltd.

This bald summary hardly does justice to the very interesting way in which the points enumerated are expanded and expounded. He is very chivalrous to the ladies, where he says that "the aptitude which many women have shown in assimilating mechanical instruction and in handling work hitherto exclusively performed by men has been a liberal surprise to every employer of labour. Scores of instances can be shown where a woman employed on the same class of work under the same conditions as a man, has turned out more and better work." Whole-hearted gratitude for what the women are doing shall not prevent our saying that Mr. Ramsay's "scores of instances" could be swamped by innumerable contra-indications, and we cannot help feeling that either he has been carried away by a very amiable accession of generosity, or that his experiences have been exceptionally fortunate. At the same time, it must be acknowledged that he reaches a sound conclusion on the general question when he holds that the permanent retention of women in industry will be a necessity of conditions created by the war. There will be, alas! fewer men to do the work, and, consequently, more women who must perforce become bread-winners. We can cordially commend Mr. Ramsay's book as a thoughtful, suggestive, and disinterested contribution towards the solution of a complicated problem that is too often approached in a very different spirit. While avoiding controversial methods and a dogmatic tone, the author nevertheless leaves no doubt as to the conclusions he has formed as the result of special opportunities for close observation from opposite points of view.

The Empire Municipal Directory.

The thirty-sixth annual issue of "The Empire Municipal Directory and Year Book" for the official year, April 1, 1918, to March 31, 1919, comprises among its leading features a complete and officially corrected directory of all the corporations, county, borough, urban, and rural district councils, and Port sanitary authorities in Great Britain and Ireland and the Channel Islands, with lists of their chief officials; the offices and places of meeting of all the corporations and councils, a directory of the municipalities, shire councils, etc., in all our overseas dominions, and their officials; informative and statistical data for municipal officials and specially contributed articles on various kinds of public work. Much other information is carefully digested, and diary pages covering the Local Government official year, April 1, 1918, to March 31, 1919, are included in this very useful volume, which is published at price 5s. net. (The Sanitary Publishing Co., Ltd., 8, Breams Buildings, Chancery Lane, E.C.4.)

R.I.B.A. ANNUAL REPORT.

(*Concluded from page* 214, *No.* 1218.)

The Institute and the Allied Societies.

A joint committee of representatives of the Allied Societies and of the Institute was appointed by the Council to consider a number of suggestions put forward at a conference of representatives of Allied Societies held at Manchester in April, 1917, for raising the status of architects and improving the relations of the non-metropolitan societies with the parent body in London. Meetings of the Joint Committee have been held in London, Manchester, and Birmingham, and resolutions have been passed embodying suggestions and recommendations, some of which are already in process of being given effect to, and others are to receive the Council's careful and sympathetic consideration. The meetings in the Allied Centres have been of a very cordial nature. The discussions have traversed a wide field, and opportunity has been afforded for an interchange of ideas which the Council feel will have excellent results not only for the unity of the profession with which the resolutions were mainly concerned but also for the advancement of architecture, which it is the Institute's mission to further.

Revised Form of Contract.

The Committee for the Revision of the Conditions of Contract have completed their labours, and the draft revised form will be submitted for the opinion of the Institute solicitors. The Committee report that they have held thirty-nine meetings, and have considered the task entrusted to them in the light of recent legal discussions and of the various difficulties in connection with the existing form which have been before the Practice Standing Committee from time to time. They also acknowledge their indebtedness to the forms used by various public bodies and practising architects. The revised form will be submitted for the sanction of the general body at the earliest convenient date.

Suspension of By-laws.

In order to save the expense and labour involved in the annual elections, the Council brought forward a proposition, which has been assented to by the General Body, that the elections should not take place this year, and that the present Council and Standing Committees should continue in office, an exception being made in the case of the representation of the Allied Societies and the Architectural Association, which are to be represented bv their presidents in accordance with the bv-laws. Application has been made to the Privy Council to sanction the suspension of certain by-laws to enable the proposition to be given effect to.

The Great Pyramid of Gizeh.

The attention of the Council having been drawn to a scheme promoted by an American society to erect a school in such close proximity to the Great Pyramid of Gizeh that no one could look at the monument without having the school buildings thrust upon his notice—the promoters frankly avowing that the Pyramid was to serve as an advertisement for the school—the Council appealed to the Secretary of State for Foreign Affairs to intervene with the Egyptian Government to prevent a site of such supreme historical and archæological interest being desecrated in the way proposed. A reply from the Foreign Office stated that the letter had been co municated to Sir F. Wingate, H.M. Co missioner for Egypt, and that he had giv the assurance that the Egyptian Gove ment disapproved of the scheme and th it had been abandoned.

Scheduling of Air Raid Refuges.

The President has approached the Ch Commissioner of Police with suggestions connection with the steps to be taken f scheduling buildings which are relativ safe as refuges for the public during raids. He proposed that there should enlisted for the work the assistance of d trict surveyors, whose duties render the familiar with the construction of modern buildings in their distri and with many of the older on and that they should be assisted by arc tects and surveyors, whose training and perience specially qualified them to insp and report. It was further suggested th the owners and occupiers of buildings ported relatively safe should be asked consent to the public in an emergen taking refuge in them. Attention was al called to the desirability of rendering li wells of tube stations safe by means sand-bags or other protection. A re has been received stating that the sugg tions would be laid before the committ which have been appointed to advise t police authority as to the safety of air-ra shelters.

The Council deeply regret to record t death in action of Private William Finch London Regiment, for thirteen years offi attendant at the Institute.

The Secretary is holding a commission the Royal Defence Corps (home servic the chief clerk is in the Army Pay Depa ment, and others are serving abroad. T Council continue to supplement their m tary pay so that their incomes may not less than their civilian salaries.

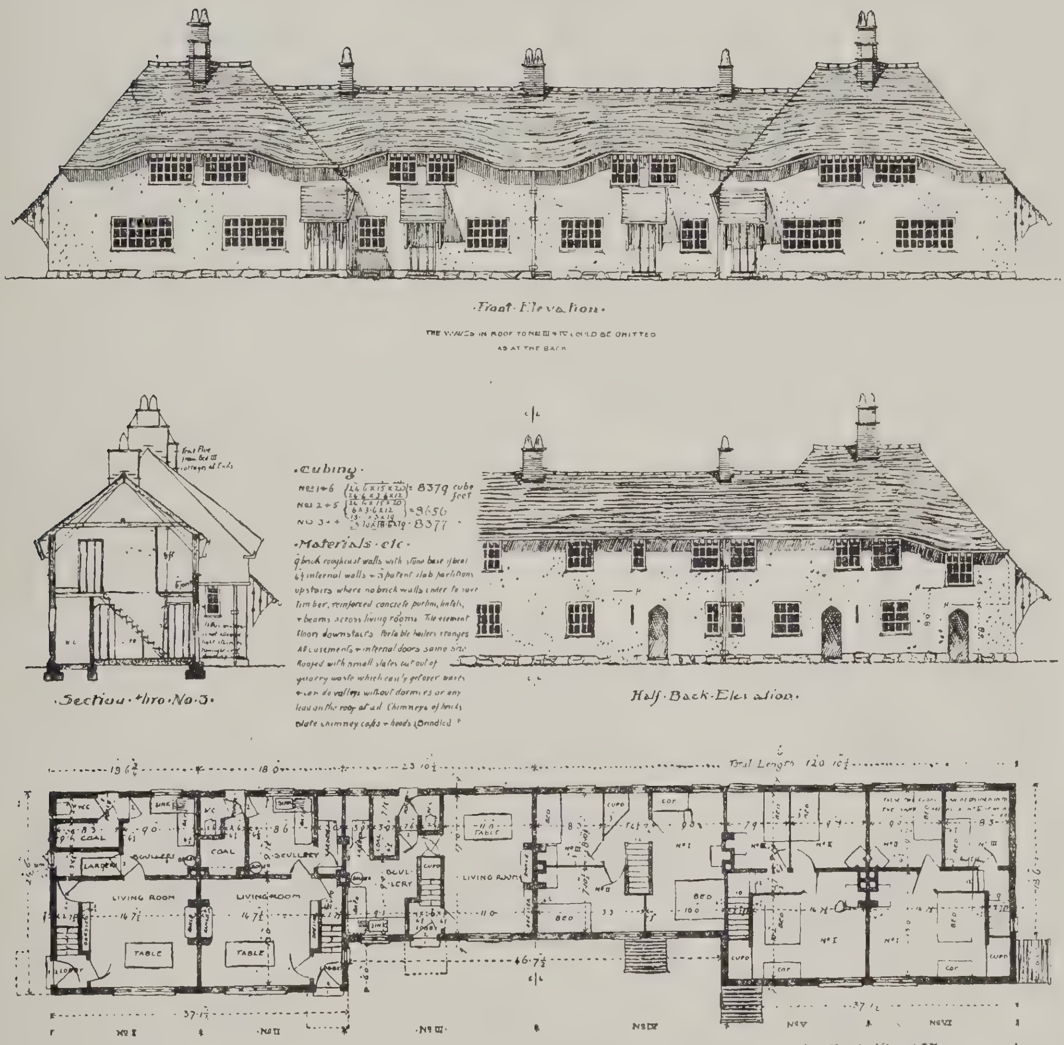
OBITUARY.

Mr. James Garry, F.R.I.B.A.

The death has occurred at his residen The Grange, Stranton, West Hartlepo of Mr. James Garry, architect. A nati of Bishop Auckland, and educated at t Bishop Barrington School and the W leyan College, Mr. Garry settled at W Hartlepool in 1870, and had since carri on his profession there. He designed number of buildings in the town, includi Burbank Church, the Presbyteri Church, the Grand Hotel and Tunst Court (the residence of the late Lo Furness), Mr. Garry was a member the Old Town Commissioners prior to t incorporation of the borough in 1887. was an enthusiastic cricketer in younger days, and was a skilful violini He was a member of the Harbour Refuge Lodge of Freemasons. He w sixty-seven years of age.

Heavy Floods Withstood.

Striking evidence of the certainty wi which reinforced concrete can be wate proofed is furnished by Mr. Cyril Machin, M.I.M.E., who, a year ago, co structed of this material a small bridge a pipe carrier for 9-in. pipes over a strea "The bridge," he states, "is subject floods over it. The work is in perfect co dition, though several big floods have be over it." To the last 6-in. layer of co crete, it is worth noting, was added 5 p cent. of Pudlo.



·Cubing·

Nos 1 + 6 = 8379 cube feet
Nos 2 + 5 = 9656
Nos 3 + 4 = 8377

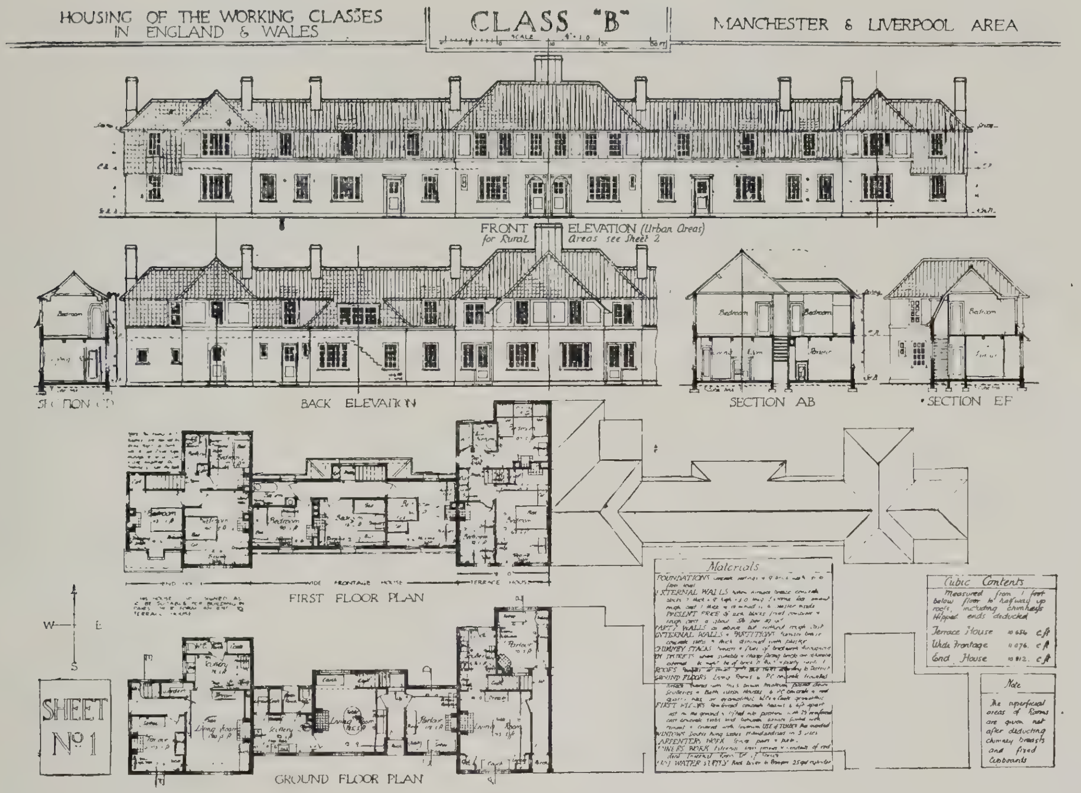
·Materials·etc·

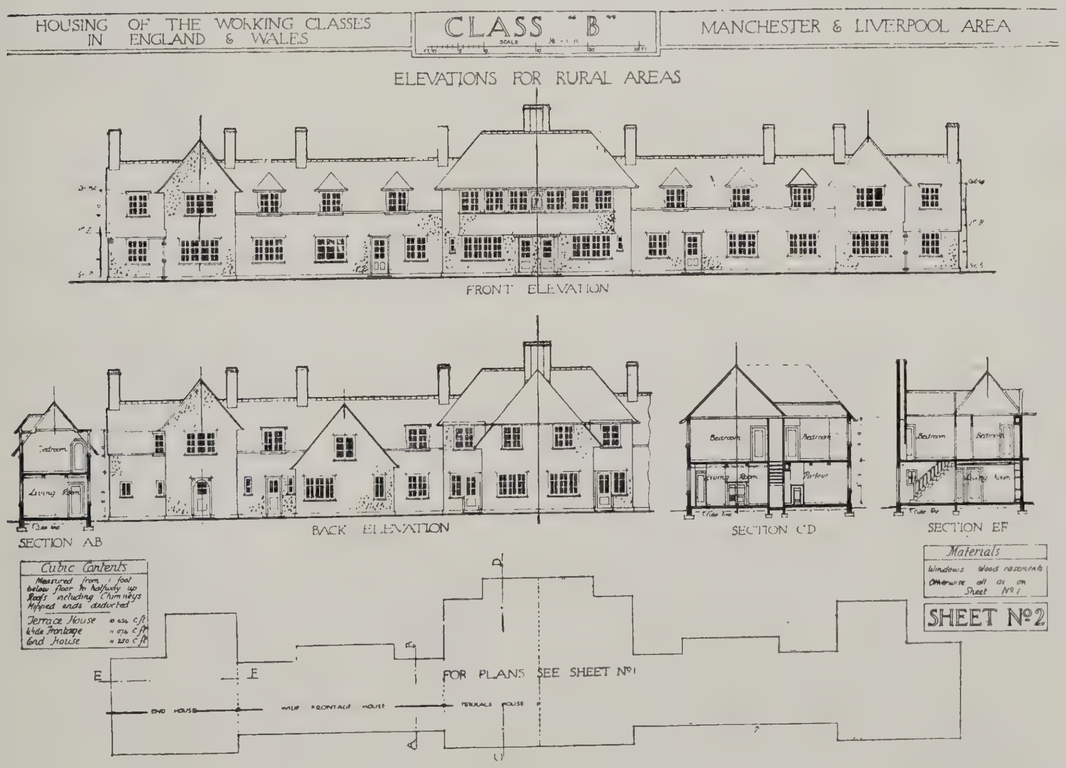
9 brick roughcast walls with stone base if local 4½ internal walls + 3 patent slab partitions upstairs where no brick walls under to save timber, reinforced concrete purlins, lintels, + beams across living rooms. Tile cement floors downstairs. Portable boilers + ranges. All casements + internal doors same size. Roofed with small slates cut out of quarry waste which easily get over waves + can do valleys without dormers or any lead on the roof at all. Chimneys of bricks slate chimney caps + hoods (Brindled)

The block preferably should face South East so that Living Rooms should not be too hot & the back get a [illegible]

CURRENT ARCHITECTURE (SERIES V.). XV.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (LIVERPOOL AND MANCHESTER AREA): FIRST-PREMIATED DESIGN, CLASS A.

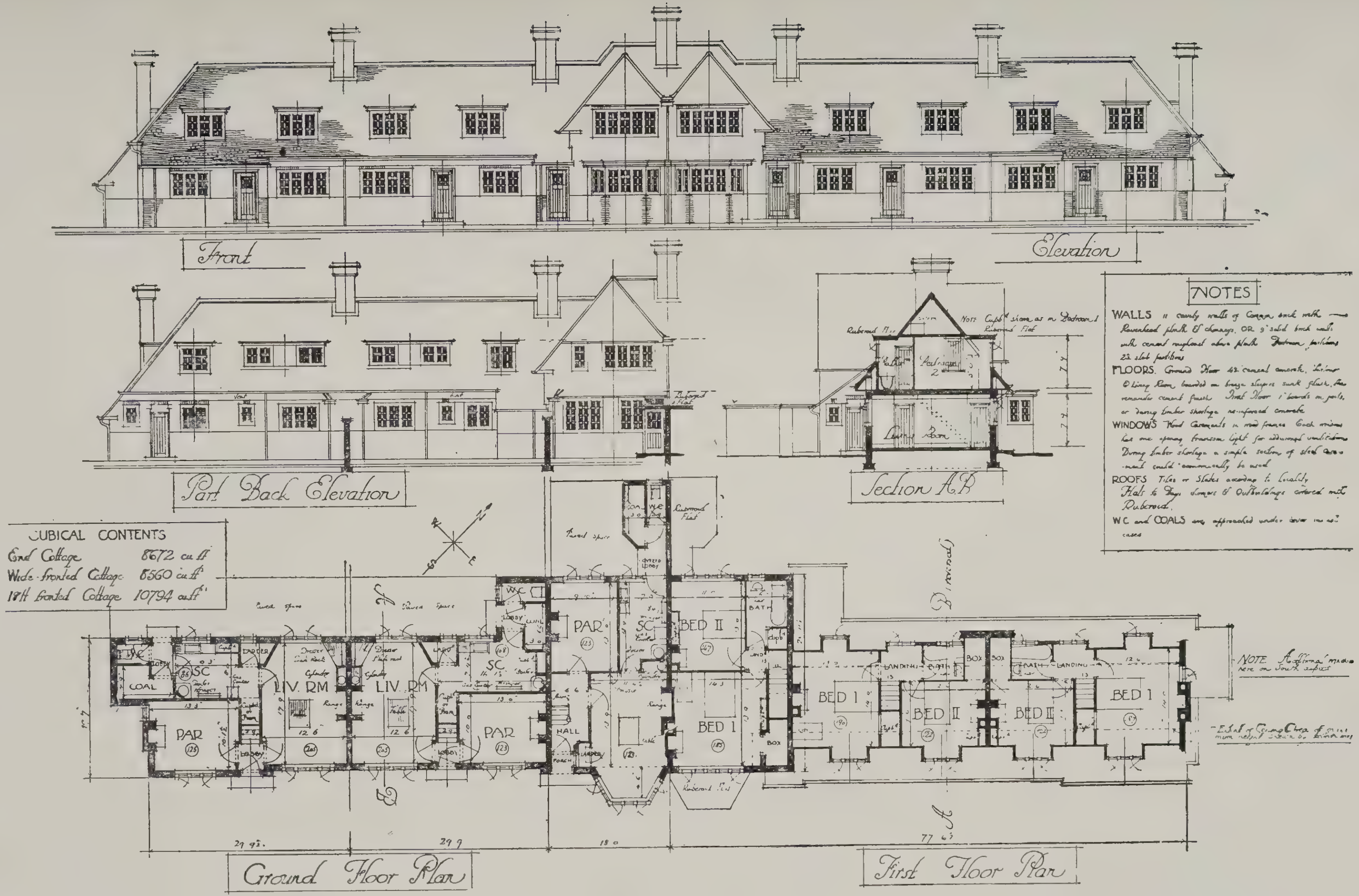
E. D. NORTH, F.R.I.B.A., ARCHITECT.


HOUSING OF THE WORKING CLASSES IN ENGLAND & WALES
CLASS "B"
SCALE
MANCHESTER & LIVERPOOL AREA
FRONT ELEVATION (Urban Areas) for Rural Areas see Sheet 2
SECTION CD
BACK ELEVATION
SECTION AB
SECTION EF
FIRST FLOOR PLAN
GROUND FLOOR PLAN
W
E
S
SHEET Nº 1
Materials
Cubic Contents
Measured from 1 foot below floor to halfway up roofs, including chimneys. Hipped ends deducted
Terrace House
Wide Frontage
End House
Note
The superficial areas of Rooms are given net after deducting chimney breasts and fixed Cupboards



CURRENT ARCHITECTURE (SERIES V.). XVI.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (LIVERPOOL AND MANCHESTER AREA): FIRST-PREMIATED DESIGN, CLASS B.

BRIGGS AND THORNELY, ARCHITECTS.


Front
Elevation
Part Back Elevation
Section A.B.
NOTES
WALLS 11" cavity walls of Common brick with Rosehead plinth & chimneys. OR 9" solid brick walls with cement roughcast above plinth. Bedroom partitions 2½" slab partitions
FLOORS. Ground Floor 4½" cement concrete. Living & Dining Room, boarded on breeze sleepers sunk flush, the remainder cement finish. First Floor 1" boards on joists, or during timber shortage reinforced concrete
WINDOWS Wood Casements in wood frames. Each window has one opening transom light for additional ventilation. During timber shortage a simple section of steel case-ment could economically be used
ROOFS Tiles or Slates according to locality. Flats to Bays, dormers & Outbuildings covered with Ruberoid.
W C and COALS are approached under cover in all cases
CUBICAL CONTENTS
End Cottage 8672 cu ft
Wide-fronted Cottage 8560 cu ft
18 ft fronted Cottage 10794 cu ft
W.C.
COAL
SC
PAR
LIV. RM
HALL
PORCH
BED I
BED II
BATH
BOX
LANDING
A
B
29 9½
29 9
18 0
77 6
NOTE Additional windows here on South aspect
Ground Floor Plan
First Floor Plan

CURRENT ARCHITECTURE (SERIES V.). XVII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (LIVERPOOL AND MANCHESTER AREA): FIRST-PREMIATED DESIGN, CLASS C.

HALLIDAY, PATERSON, AND AGATE, ARCHITECTS.

NOTES as to DESIGN

The Bungalow may be built either detached as shewn, or semi detached as indicated in outline, appearing in each case a complete and symmetrical block.

The most suitable aspect is indicated by the North Point, but the building could face anywhere between SE and SW.

The design is on lines adapted for economical & standardised building, & for repetition on a large scale with increased economy.

No bedroom is reached by means of another room, but the block is yet compact and without unnecessary corridors.

The doors are arranged to interfere as little as possible with the working of the rooms (see especially Liv. Rm & Scullery).

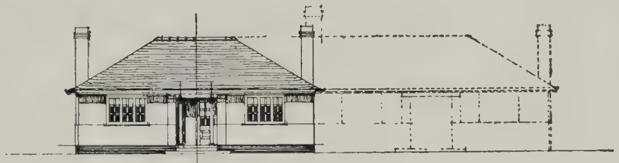
The Hot water apparatus (Boiler, Cylinder, Cistern, & all fittings) is concentrated within the space of a few feet.

A store is provided for Boxes & Utensils.

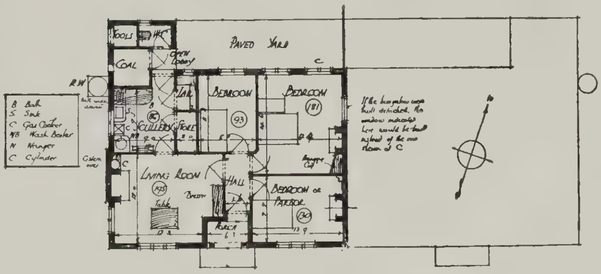
A portion of the roof spaces would be boarded as a store for apples, sprouting potatoes, &c.

Coals and WC are both approached from the back door under cover.

CUBICAL CONTENTS of one house
11408 cube ft



FRONT ELEVATION

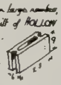


PLAN

NOTES as to MATERIALS.

WALLS of brick, either whitewashed or roughcasted (with base of dark or tarred bricks) or brick facings if the locality supplies a sandfaced brick. ROOF of slates or flags, according to locality, or Grey asbestos slates, saving about 50% of bearing timbers.

If the bungalows were built in large numbers, it would in most localities be built of HOLLOW CONCRETE BLOCKS as sketch.

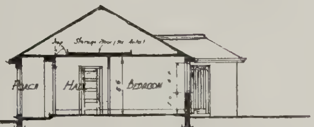


A one story building would require no reinforcement, and the cavity would keep the building warm.

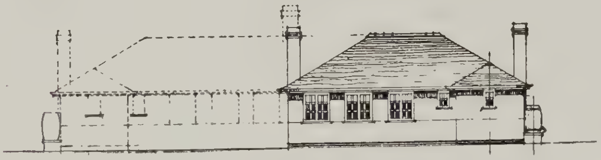
The blocks are light enough to be readily handled by one man, but large enough to ensure speedy erection. They would be made on the site by means of a special plant and from local materials. In the case to dispense with constructional timber entirely a reinforced concrete & asphalte flat would be adopted, the floor boards being used as centering. Only skimming coat of plaster is necessary.

The GROUND FLOOR would be of 4" Concrete & 1" floor boards nailed to breeze fixing blocks.

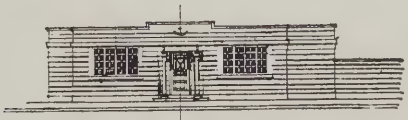
WINDOWS would be of Standard Steel casements, which can be produced in large quantities when the manufacture of munitions stops.



CROSS SECTION THRO' ENTRANCE



REAR ELEVATION



FRONT ELEVATION

NOTES as to DESIGN

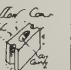
The design is on lines adapted for economical and standardised building and for repetition on a large scale with increased economy.

No Bedroom is reached by means of another room, but the block is yet compact and without unnecessary corridors.

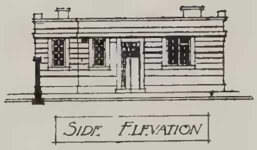
Coals and WC are both approached from the back door under cover by means of an open lobby. Space is provided in the open lobby for an Ashes bin.

MATERIALS

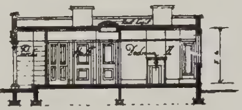
WALLS built of Hollow Concrete Blocks as sketch, 9" × 6" average length 2' 3" with steel reinforcing rods. These blocks are large enough to ensure rapid erection but not so heavy as to involve the use of tackle. They would be made in standard lengths, could be supplied from manufacturers or in the case of an extensive scheme cast by means of plant on the site, a local aggregate being employed.



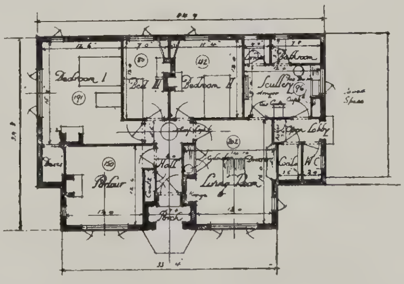
The design is simple and the number of standard parts is reduced to a minimum. There are three sizes of window sills and heads, two of window jambs (used so as to allow perfect alignment of the concrete against the steel frames.



SIDE ELEVATION



CROSS SECTION thro Entrance



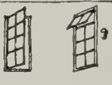
PLAN

NOTES contd.

FLOORS & ROOFS The proposed floors & flat roofs would involve the use of a large quantity of timber were it made of concrete (breeze aggregate) & steel wire mesh reinforcement. The floors would be covered by boards nailed to the breeze, the roof with asphalte & these the boards being first employed as centering. Floors of Scullery and Offices granolithic laid to concrete.

PLASTERING Ceilings and walls would only require the skimming coat on the Concrete. There would in this respect be great economy.

WINDOWS would be of steel made in sections each of two panes in width in two varieties viz. one having a casement opening outwards as at A & one with a small opening light hung to the head as at B.



There will be only one size of each of these standard lights.

STEELWORK

It is expected that the steel for windows & reinforcement will be readily obtainable after the war as so many works & buildings which have been employed on munitions will be available for the production of building materials quickly and in large quantities whereas the difficulty in obtaining timber will continue for a long period.

Internal WALLS will be 3" solid Concrete slabs.

CUBICAL CONTENTS
Calculated from one foot below the Floor to the top of Flat roof
12534 cu ft

CURRENT ARCHITECTURE (SERIES V.). XVIII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (LIVERPOOL AND MANCHESTER AREA): FIRST-PREMIATED DESIGN, CLASS D.

HALLIDAY, PATERSON, AND AGATE, ARCHITECTS.

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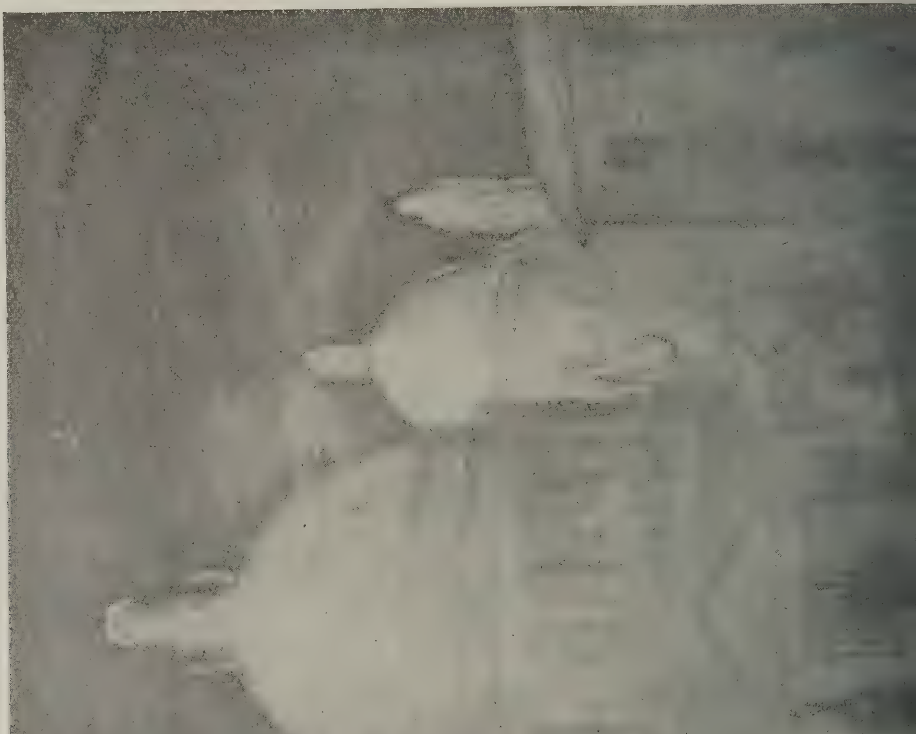

ARCHITECTURAL DRAWINGS AND SKETCHES. XVIII.—SANTA MARIA DELLA SALUTE, GRAND CANAL, VENICE.

(*From a water-colour drawing by the late Captain Charles Gascoyne.*)

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

MAY 22, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1220.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restricons on paper supplies, all elements of waste must e rigorously excluded. Our readers, we are sure, ill gladly assist in promoting this object, which is n item in national economy. They can co-operate ith us effectually in either of two ways—(1) By lacing a direct subscription for this Journal, or (2) y placing with a newsagent an order for its regular elivery.

It is announced that the Paper Controller is about forbid the returns of unsold copies of newspapers nd periodicals to the publishers. Newsagents will erefore become keenly interested in the elimination f the casual customer—will be morally compelled obtain only those papers that have been previously rdered. This fresh development strongly nphasises the foregoing advice to place a direct ubscription or to give a newsagent a standing order or regular delivery.

PROMINENCE is given, on a subsequent page, to a précis of the evidence which the R.I.B.A. proposes to submit to the Building Materials Supply ommittee of the Ministry of Reconstruction. A first npression from this document is that it does not quarely meet the clauses of reference which accomany it. Broad generalisation is perhaps all that can e expected in a summary of views, and no doubt more elpful advice will be forthcoming when the time rrives for going more fully into detail. In the first aragraph of the summary, there is a very safe ssumption that "the supply of materials will be nsufficient to meet all demands at the termination of e War." In the next paragraph it is admitted that nmediately urgent national needs are entitled to riority, and the question at once arises, wherein are ese "immediately urgent national needs" likely to onsist? If they are to include housing, schooluilding, and factory construction, they may for a year r more absorb all the available men and materials. Vhat, therefore, becomes of the advice with which the ext sentence opens—that all other claims should be egarded as equal, and markets be left free and nfettered? It is redeemed from futility by the eason attached to it—"so that production may be imulated to its utmost, and prices thereby reduced to normal level at the earliest possible moment." There considerable force in this observation, if it means at continued control might have the effect of onfining output to the measurable quantity nicely lculated to meet specified needs. Goods that are pplied to order, or for which there is a restricted and unfluctuating demand, command much higher ices than those that are produced speculatively; and here the market is certain, production is apt to be on-competitive, and therefore to lack the stimulus to uick and cheap production. Producers having virally but one customer—the Government—are more cely to conspire than to compete; and, as long as the blic demand is suspended, the producers will content emselves with fulfilling orders of fixed quantities at ed rates. Not till they have to compete in open arket will quantities increase and prices decline. To is extent the R.I.B.A. advice is economically sound.

But the problem is much less easy of solution than the R.I.B.A. summary seems to imply. It does nothing to dispel doubt of the wisdom of removing Government control immediately on the declaration of peace. Supplies will at first be lamentably short. That is admitted in the summary. Is it not therefore in the highest degree probable that, failing Government control, they will be immediately snapped up and cornered by persons in a position of advantage. In that case, control would not be removed. It would be simply transferred from responsible to irresponsible hands. We are not enamoured of control of any kind; but if the choice of controllers lies between the State and the profiteer, we prefer to bear the ills we have rather than fly to those we know not of. Better rationing than hoarding. That is the sole point of an objection that would disappear if the suggestion of preparing at once for an increased output of material could be adopted; nor can it be seen quite clearly that this "depends almost wholly upon the amount of labour available for the purpose." Labour, of course, is the chief difficulty, though not the only one, with respect to indigenous products; but it has no very direct bearing on, for instance, the timber supply; nor does it cast so little as a casual glance at the wholesale commandeering of workshops and machinery. So much more than man-power is involved, that this particular reference to it seems rather short-sighted. It is not to be denied, however, that a more economical use of labour, and its more judicious distribution, might enable the building industry to begin at once to prepare for peace. We will venture to go further. We suggest that as the building industry (in the largest sense of the phrase) has been brought to a standstill by direct intervention of the Government, it would be no more than fair for the Government to re-establish it at the earliest possible moment, not only by releasing labour for its service but by guaranteeing that the labour shall not be in vain. For what brickmaker, for example, would care to produce millions of bricks at the present wage-rate, unless he had a definite assurance against loss contingent on a subsequent fall in wages-rates; or, indeed, where is he to find the money for the payment of those high wages, unless he is guaranteed an immediate return on his outlay? This is apparently the sense in which Clause D in the R.I.B.A. summary is to be construed. With the remainder of this clause we are in less sympathy, because a mere assurance that Government control shall "cease at the termination of hostilities" is insufficient, and the request for it weakens considerably—or at least wears the appearance of weakening—on the comparatively bold and wholly sound recommendation immediately preceding it, "that material should be accumulated and secured in advance, by immediate purchase of available stocks, by such earmarking as may be practicable both at home and abroad, and by expediting present production so far as that may be done without affecting the conduct of the War." This is the wisest and most practical suggestion in the summary, and we trust that it will be pressed home.

* * * *

In dealing with the housing question, we have upon several occasions suggested that State loan banks might be established to meet the case of the private builder, whose knowledge and experience in the provision of working-class dwellings should certainly come into the scheme, if justice and expediency are of any account. It is now announced that a committee has been formed to inquire into this matter, and the names of its members are published. Including the chairman (Mr. Henry Hobhouse) and the secretary (Mr. W. G. Wallace), they are eleven in number, and among them we cannot detect one solitary name of an architect or a builder. Bank managers and financiers of one sort and another very rightly preponderate; but surely they need the expert advice and assistance of men who know something about building. Of course, the evidence of builders will be collected; but who among the committee is competent to elicit it, and afterwards to sift it and finally to report upon it? Bankers and financiers may be omnipotent. That they should be also omniscient is too much to expect of them, and we protest emphatically against the failure—whosoever may be responsible for it—to provide them with the competent advice which practising architects and working builders are alone able to give. There might, too, have been included with advantage one or two representatives of building trades unions, whose presence on the committee would be invaluable. Unless the committee is modified in the sense of these suggestions, its operations will be greatly hampered, and its conclusions can inspire but little confidence.

* * * *

Those who have opposed national housing on the ground that it will be an enormous charge on the rates will get a shock if they happen to read what was said on this point by Mr. W. T. Lancashire, the Leeds City Engineer, at a meeting of the North-Eastern District of the Institution of Municipal and County Engineers. He had calculated the cost to the Leeds Corporation of an imaginary scheme for 2,000 houses, and, taking land at £200 an acre, allowing twelve houses per acre, and estimating the increased cost of the house-building at sixty per cent. above pre-war prices, he found that the cost to the corporation would be approximately a penny rate. Less careful, and perhaps less disinterested calculators have worked it out at sevenpence-halfpenny. It is not necessary to conclude that the lower estimate is unduly optimistic, or that the higher is absurdly excessive. Much depends on local conditions; and it may seasonably be observed that the value of a rating figure varies with its incidence—that it cannot always safely be taken as an index of the onerousness of the burden. Some districts would be better able to endure the sevenpence-halfpenny rate than others would the penny one. As a builder—Mr. E. R. Jones—has shown in an article contributed to the "Liverpool Daily Courier," the present system of rating is obsolete and iniquitous.

* * * *

Mr. Jones gives some illuminating instances of how the present rating system works. They are, as he acknowledges, extreme cases, but that does not destroy their validity. Two men earn equal wages. Each owns a cottage with garden. A saves 20 per cent. of his wages by economy and raising his own vegetables. B spends 20 per cent. of his wages in drink, and neglects his house and garden. Soon A is able to add a room to his house. He is promptly punished by having his rates raised. By this time B's cottage has become an eyesore and a menace to the public health. He is rewarded by having his assessment lowered; and a further loss to the rates ensues on the payment of a sanitary inspector to keep a watchful eye on him. What is even worse is the way in which a thoroughly rotten system of rating acts in restraint of trade. Old, insanitary, obsolete factories and other buildings are patched and repaired, when it would be more economical to build, were it not that the assessment would be increased; "and thus," says Mr. Jones, "the develop-
ment of the country is held up generally." He clinc
his argument with a telling quotation from
Edward M. Gibbs: "The injustice and bad policy
the present system of rating is so self-evident that
certain it could not be entertained as a new imposit
and it is somewhat surprising that a great natic
industry such as the building trade has for so m
years quietly submitted to it." We would add h
that the rating of the machinery of production i
further deadly device for crippling industry by
couraging enterprise. Mr. Jones boldly suggests
all poor, general, water, and other rates should
abolished, and that an extra shilling on the income-
should be substituted. This looks rather like
revival, in a new form, of the late Henry Geor
"single-tax" theory. It certainly has the merit
simplicity.

* * * *

At South Shields they have the amiable habit
commemorating their town clerks by a bust o
picture. Mr. Hayton having completed twenty-
years' service, his portrait in oils is to stand fo
memorial of it in the "municipal gallery of dis
guished townsmen"; where also are to be seen a b
or a portrait of his two precursors in office. A bus
Mr. Thomas Salmon bears the inscription, "The F
Town Clerk"—in Greek! This must have been d
when the Classical Revival was as a fitful fe
Perhaps the sculptor had in mind the Greek practic
conferring on worthy citizens the honour of the ei
—a picture or statue erected in the citadel, forum
other public places of the city. Greek characters
infinitely more beautiful than the Roman, and grac
statue much more naturally. There is in the Gr
lettering an air of careless ease, a spontaneous fluer
that make it supremely human; whereas the Ror
is at best prim, stiff, formal. Roman severity
precision, appropriate to their elaboration of the l
would have been more in keeping with the comr
conception of a town clerk; though, for that mat
Roman law owed much to Solon, and the Greek c
was elaborated rather meticulously—a precious w
that may serve to recall an interesting name.
Athens there were ten law-courts, distinguished
various arbitrary names, one being called, "
Metichou," after the name of its architect—Metic

* * * *

Architects as well as sculptors should make m
use of the Hall of Greek and Latin Inscriptions in
British Museum, when it again becomes accessil
but they will have to get special permission, for
official notice runs, "The greater part of the collec
is only accessible to persons desiring to make spe
studies." Those who prefer to take a home cours
this fascinating phase of art should get Parts I.-IV
"Ancient Greek Inscriptions in the British Museu
which, before the war, cost a trifle of four pounds s
ling. Whether, like other publications, this monume
work has had its price increased by fifty or a hunc
per cent., we know not. As a matter of intrinsic va
it is worth its weight in gold—or paper; but
architects and sculptors most in need of its assista
are those who are also most in need of the cash;
we would urge that if this fine publication is to b
service to those to whom it would be most usefu
should be reproduced at a more popular price. F
pounds! Sir Robertson Nicoll has demonstrated
(before the war) five pounds would procure a dec
library; but it does not include many works on
Doubtless the words on the Salmon bust are Gr
(and we must confess to some curiosity as to the Gr
for "Town Clerk"); but if the sculptor had sin
transliterated the English he could have pointed
precedent in the British Museum, where there is a
of an inscription from the Forum showing Latin w
written boustrophedon in archaic Greek charact

HERE AND THERE.

SOMEONE has said that "Science is measurement." All the thousand-and-one other definitions are equally accurate, but most of them are ess terse. "There are nine-and-sixty ways Of iditing Indian lays, And every blessed one of them right." Shall we be less tolerant of the multitudious definitions of Science? But why worry about iem at all? Such questionings get us "no forrader"; id one groans inwardly or audibly at every fresh itbreak of the stale old conundrum, "Is Architecire an Art or a Science?" One always yearns to ply to it with Parliamentary ambiguity, "The iswer is in the affirmative." It would then still be ecessary to pacify the malcontents who would retort iat it is both, or that it is neither.

* * * *

But I cling to the saying that Science is measureient, because it is easy to remember; and if you iust have a definition, you must content yourself with short one, if only for the sake of paper economy. i the same interest, I could wish that the recently sued "Report of the Committee Appointed by the rime Minister to Inquire into the Position of Natural cience in the Educational System of Great Britain" ad been shorter itself and had been given a shorter tle; also that it had been printed in shorter lines on shorter page. In a practical application of my ivourite definition, I run a surveyor's chain over the road acres of the report, and find that the lines are bout six inches and a half wide, on a page about even inches deep. That word deep is the term nployed by printers in referring to the length of a age. As to the actual depth of this official document am all at sea and out of soundings. My method of easurement is purely superficial. For aught I know, ie document may be either of fathomless profundity, as shallow as a puddle in the road. To assume that is at least as deep as my own ignorance is to allow a nsiderable margin for safety.

* * * *

Perhaps the very considerable margin all round this port is a margin for safety. I can find no other cuse for it. Too small for note-making, it might be duced by one-half without any danger that the ecious words of wisdom would slop over, so to speak. loquent words they are. None of your dry and dull ficial language, none of the trenchancy of Haig or ellington, but a suggestion that the flowing periods Matthew Arnold, who transmuted the dull lead of hool reports into the burnished gold of literature, ad been taken as the model. Here are one or two ems from this rich mine: "Not for the first time our lucational conscience has been stung by the thought at we are as a nation neglecting science." And here quite a Johnsonian, or Macaulayesque, or Johnurnsian triad: "Steps had been taken. . . . certain schools to introduce the teaching of Science, it this work was done under great difficulties and as regarded with jealousy by the staffs, with conmpt by the boys, and with indifference by the irents." But "gradually this Benjamin of subjects on toleration if not affection in the family circle." ut Science, with a capital S, being fostered to the clusion of literature with a small l, "the river of lucational enthusiasm, never too strong, was conseiently split into two weak streams." I dare say I n not alone in my simple-hearted admiration of this gure of speech. To my mind it shows the determinaon of the authors to cast off the arid precision of the y-as-dust man of science, and, by the free adoption literary form, to avert any further splitting of the ver.

No; the report shall not be dry, but as fluent as watery metaphors can make it. "Much ability was left untapped." "A sad amount of the general ability. . . . ran to waste." But I refrain from giving further examples of the free-flowing language of this report; which, I think, could have been advantageously cut shorter in more ways than one. A critic complaining of its limpness said that he wondered why it reminded him of an infant in long clothes. That, I suppose, is because, in the political cartoons, a Parliamentary document is frequently represented as a bantling. At any rate, the complaint seems just. Why should a White Paper or a Blue Book consist of floppy sheets of foolscap stitched through at the middle, but otherwise left at loose ends. It would be difficult to devise a form more awkward to handle or to store. Matthew Arnold's famous school reports were published—ultimately, if not in the first instance—in a neat little volume which it is a pleasure to handle as well as to read and to store.

* * * *

Yet, with all its faults, superficial and fundamental, this is a document that every architect should read, digest, and file for reference. It foreshadows radical changes in educational methods, and consequently considerable modifications in the planning and construction of educational buildings. Specialists in that class of building will not need this hint; but it may be reasonably anticipated that the new educational needs will demand a tremendous amount of building, and enlist the services of large numbers of architects who hitherto have not done much work of that kind. This document, it is true, will not give them much direct help. They must themselves interpret it in an architectural sense; and to do this at all adequately it will be advisable for the architect who shares the common ignorance of science which this report reveals, deprecates, and would fain remove, "to swot up" the subject, not merely from text-books and technical periodicals, but by visiting laboratories in being.

* * * *

Now, in many instances, it would be difficult or impossible to obtain admittance to certain laboratories, even supposing the architect could afford the time and expense of a series of visits. Could not this matter be arranged? It is admittedly of great national concern that scientific education should be conducted with the greatest possible efficiency, and therefore supplied with the utmost facilities. How could these objects be better served than by organising a commission of architects to go on a grand tour of inspection? Architectural societies have done this sort of thing in a more or less fortuitous way, with advantage to all concerned; and the visits or excursions have not been wholly restricted to buildings in progress or newly completed, historical buildings, and the like. Occasionally manufacturing works, and so forth, have afforded much enlightenment on processes that require to be seen before they can be understood; but these interludes are rare as compared with the normal sketching-tour junketings. Could not the "mix" be better graded and proportioned? Probably the readjustment will follow automatically on the alteration of the educational "mix." This, however, is a side issue. What I am advocating specially is an educative tour to be organised by the Government; and factory design and construction should be included within the purview. For the near future we shall want more schools and factories, scientifically planned and equipped, than a small band of specialists will be able to supply within a reasonable time.

DIOGENES.

HOUSING AND THE WORKING MAN.*

BY C. H. B. QUENNELL, F.R.I.B.A.

I AM very glad to have the opportunity of giving this paper, because I understand your association includes members who are working men. I hope this happens to be the case, because I think the housing problem will only be settled when the real working man tackles the subject. Such interest must be not only from the political point of view, or be solely concerned with election on to councils. Beyond all this is the necessity of finding out something of the history of the subject, and producing the labour that will not only build the houses but design them as well. I know that according to the Labour Party we are all workers now, and invited to sit at the feet of Mr. Webb, but so far as housing is concerned I doubt the ability of the middle-class man to house the real working man. I want to see him have a shot at it himself, and not be so abominably uninterested.

The Eternal Feminine.

I am at the moment engaged on a housing scheme in connection with a munitions factory, and consulted an old foreman the other day as to the plans of one of the cottages. I had an idea that if the parlour was arranged so that it could be thrown into the living room, opportunity would be given to form on occasion one fine large room. My old foreman was sceptical, and his verdict was, "Yes, the parlour is all right, if it can be locked up; my old woman won't let me go into ours unless I take my boots off." So I gave up the idea. We also have a committee of women working in the factory, whose advice is sought, and proves helpful. But what is wanted is a real working man architect, or builder, who, instead of building nasty little villas, as a lot of them do, will give us instead pleasant, simple building around the needs of his own class.

Hitherto we have been so intent on saving the other man's soul, and if that individual happens to be what is impertinently called the working man, we have denied him the right to house, wash, beer, or insure himself, and, doing it for him, have not done it very well.

Now as it is very probable that in the near future Labour will be doing all these things for itself, we can, I think, look forward to interesting times.

Housing and Industrialism.

To return to our subject of housing, it must be admitted that as a nation we are abominably housed. This need not be laboured; industrialism, which has been responsible for a general lowering of the standard of values all round, has also given us the slum and its gin palace; the unlovely rows of bye-law houses, and all the other abominations we associate with progress and its accompanying poverty. It is becoming the fashion to put down a large number of these ills to bad housing conditions, which is quite wrong. The idea doubtless is to provide a convenient whipping-post instead of making a direct attack on institutions. The slum develops on strictly logical lines from adverse economical conditions. People who read papers must indulge in truisms, so you will excuse me when I say that we have just the sort of houses we deserve, and that nowhere is the spirit of a time more faithfully reflected than in its building.

Let us see if this was the case with the old builders. I shall ask you to make a start with the twelfth century, and consider with me how well the Normans understood the art of building. We do not know much of the housing of the working classes in those days, but the Norman castle was a fine piece of w
The White Tower of London, Newcastle, C
Rising, or Castle Hedingham are splendidly typic
an art which was beginning to combine with consid
tions of defence some appreciation of comfor
living; and the Normans were great builder
cathedrals as well as castles. In the thirte
century we have Little Wenham Hall in Suff
Aydon Castle in Northumberland, which sho
marked advance, and are quite presentable ho
Penshurst, in Kent, dates from 1341, and is a
specimen of "Decorated" or fourteenth-century w
and Great Chalfield, Wiltshire, is an excellent exa
for the fifteenth century. Hardwick Hall, Derbys
for the sixteenth, shows the beginnings of the Re
sance. Raynham Park, Norfolk, shows how
Charles I.'s reign Inigo Jones had learnt fully ho
handle classical detail. In the eighteenth centur
have the graceful style of Robert Adam. I
brought along some drawings, which are to serv
the illustrations of a book my wife and I are brin
out, and which have been made to show ty
houses of the above periods.

Architecture and the Handicrafts.

Most of them are what we call great houses,
great and small are all much the same, in that
reflect very faithfully the spirit of the times. I
read history carefully, and then study the building
the periods, we shall find that these old men knew
to house themselves, and that up to the end of
eighteenth century, whether it was castle or ho
church or cathedral, cottage or barn, they did not s
able to make a mistake architecturally. Building
a pleasant simple business, with just the human t
that it should have, and this is why I want the wor
man to be interested in the question of housing.
we want a more human side to building to-day,
may as well devote some little attention to finding
how the old builders managed to achieve it. Du
the Gothic period, and up till the beginning of
sixteenth century, many more people were conce
in the lay-out and design of the various parts of
building than is the case nowadays: so that a gre
stream of energy was put into its construction. I
master builder was concerned with the lay-out,
various tradesmen as they came along were not
responsible for the actual handicraft of their w
but designed it, too. The carpenter knew how t
out his roof trusses, as well as frame them toge
and was keenly interested in going one better tha
rival in the next township. The carver often cu
joke in wood, and we have it remaining in man
miserere seat in the choir stalls of a cathedral to-
The plumber could cast in lead and decorate it, an
on through all the various trades: many more pe
had interesting work to do in connection with build
and that seems to me the explanation of the g
attraction which an old church, for example, has f
nowadays. It interests by the human quality it
This state of affairs lasted in a modified way
through the Renaissance period down to the en
the eighteenth century. Handicraft had not
dispossessed by the machine. Thorpe, Inigo Jo
Christopher Wren, James Gibbs, and Robert Ada
architects, perhaps imposed their personality on
buildings they designed in a more hard-and-fast
than the old master builder did, who was respons
for the lay-out of the mediæval building, but al
them were working to a recognised tradition,
helped by a race of fine craftsmen. So the lessons t
learnt from any study of building, when it was

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* A paper read before the Berkhamsted Branch of the Workers' Educational Association on May 17, 1918.

rt, are that it was done by men interested in their vork. Done, as a rule, in their own part of the world, n the local materials they knew how to handle. Done s well, in all probability, for people they knew, and vith whose life and requirements they were intimately cquainted.

Berkhamsted—a Concrete Example.

Taking our own town of Berkhamsted as a concrete ase, we can instance the remains of the castle—the ld part of the school, the church, High Street with its leasant old inns, shops, and Georgian houses, as eing typical of periods when building was an art; he Kitsbury region, and in particular Shrublands venue, as being extremely good specimens of wentieth-century architecture. You will perhaps not gree with me in this, and say that some of the Doctors' ommons houses, or those on the Common, are far etter and more representative. I should be sorry to nd myself in disagreement with you, but I think the ormer represent the spirit of their times, and are in eality more honest than the latter. If you examine he houses at Kitsbury very carefully, you will find hey have many of the attributes which we look for n style; there is a certain uniformity which shows hey have been produced by conditions which are airly general; there is apparently a traditional way f building them, not necessarily a good one, but yet nderstood and easily practised by the tradesman of o-day. Of the other houses this cannot be said; hese are built of all sorts of materials, not necessarily ocal, and they have been built in a variety of styles; referably those of by-gone days. They have been lesigned by many different men, and each one seems o have determined that he would make his house as nlike to its fellows as possible. If you think about he matter at all, Shrublands Avenue in reality offers nore possibilities; it may be a bad tradition, but there s something running through all these unlovely villas vhich is lacking in the mock-antique houses, pretendng to be farm-houses, manor houses, Georgian ouses; in fact, anything but what they are. If hrublands Avenue lasts, the twenty-first-century man vill say, "Oh, here is the real thing; those other ouses are only copies."

The Speculative Builder and his Difficulties.

I have not lived in this town long enough to know vho were the builders of the Kitsbury houses, but the reat generality of such are built by the small speculaive builder. Often the master man may have been a oreman, who has saved a little money, and takes up a lot or so of land. Perhaps he is a carpenter, and oes this part of the work himself, and lets the brickvork to a friend who is a bricklayer. It is common uilding by the common men, and they are lineal escendants of the builders of the old cottages with vhich our country is fortunately so well provided. My trong feeling is that if we could improve the building r economical conditions for them, and stimulate our ommon builders to interest in their job, they are the nen who could re-house the working classes better han any others.

We may as well consider what are the adverse conomical conditions which are hindering the evelopment of simple common building. You can o very little without land, either in the way of rowing food or building houses, and since the culmiation of the Enclosure Acts at the end of the ighteenth and beginning of the nineteenth centuries, wnership has gone out of fashion in England except or the privileged few. The Board of Agriculture ublished not so long ago a pamphlet on the proportion f owners to the acreage in England and Germany, nd productivity of the same. I cannot lay my hands n the paper or give you exact figures. but, speaking rom memory, there are far more owners and greater roductivity in Germany. Speaking in the House of Lords on July 20, 1911, the Lord Chancellor said that land transfer in this country "was little short of a scandal"—that it "was unique for its futility and costliness." And much more in this strain. As the transfer of land is a necessary first operation for building, to depend upon a system which is unique for its futility and costliness is to introduce at the start the first adverse condition. But we will imagine our builder to have entered into a building agreement to take up the land; and these agreements are generally contrived so that the basis is a leasehold one, with an option to convert into a freehold at so many years' purchase of the ground rent.

Houses and Roadways.

Our builder must then prepare plans of houses and roads, to submit to the local authority, and the second adverse condition is that to secure space between the houses, the bye-laws will insist upon a roadway much wider than necessary for traffic requirements, and consequently far more costly. The immediate effect of this is that the builder narrows his frontage as much as possible, not so much perhaps to economise land, as to squeeze as many houses as he can on to his expensive road. A far better plan is to make only the main traffic roads of full width and high cost, and let the bye-roads be no more than carriage drives with wide grass margins. Sufficient space between the houses can be arrived at in a more economical and pleasant way than by making wide metalled roads. If we take Shrublands Avenue as an example, what is the good of a wide metalled space, which must have cost £7 to £8 per yard, or a road which is a cul-de-sac, has an abominable gradient, and will never be a main traffic road. An appreciable addition has been made to the cost of the houses, and the money is sheer waste.

The Question of Finance.

Now as to how our friend raises the money for building. In the generality of cases he is a small man, and his savings will not do more than suffice to make a show. The law, which is to hamper him throughout, provides the astute lawyer, often of Semitic origin, who will lend money on the building agreement. These advances usually coincide with the fixing of the various floor joists, and the covering in by roof. Interest dates from the signing of the bond, and survey fees are charged for each advance. When the house is roofed in, this temporary mortgage is called in, and a permanent mortgage arranged, and again there are more fees. In the end our little builder man may have paid 12 to 15 per cent., so here is another adverse condition, and it is a difficult one to escape, because the builder holds the land on a system which is unique for its futility and costliness. There is the necessity of proving his title, and so on, all of which makes the property difficult to negotiate as a security. Land and registration will help in this direction. What generally happens is that after the builder and the house have been bled white, interest falls in arrear, and foreclosure enables the Hebrew to reap that due reward which we are amiably determined must be his.

(*To be concluded.*)

[Is Mr. Quennell quite certain that "the various tradesmen as they came along were not only responsible for the actual handicraft of their work, but designed it too?" This, we are aware, is commonly assumed, but the evidence is, to say the least of it, nebulous and inadequate. We find it difficult to believe that the old-time craftsman was more skilful than the craftsman of to-day. He was certainly more illiterate, and had fewer opportunities to learn the principles of his craft. On the other hand, the modern worker is not encouraged to express his own individuality. Whether the old-time worker was allowed more liberty is not certainly established.—EDS. A. AND B.J.]

R.I.B.A AND BUILDING MATERIALS SUPPLY.

THE Council of the Institute having been invited by the Building Materials Supply Committee of the Ministry of Reconstruction to appoint representatives to express the views of the Institute on questions contained in a reference to the Committee respecting the supply of materials, etc., after the War, the President, Mr. Henry T. Hare, Mr. Paul Waterhouse, Vice-President, and Mr. John W. Simpson, Past Vice-President, were appointed for the purpose. The representatives were requested to furnish the Committee in advance with a précis of the evidence proposed to be submitted, and this was done in a letter, a copy of which appears below:

[COPY.]

May 7, 1918.

Captain B. M. Cutbush, Secretary,
Ministry of Reconstruction, Building Materials Supply Committee.

Sir,—With reference to your letter of March 16 addressed to the Secretary,

We beg to inform you that we have been appointed by the Council of the Royal Institute of British Architects to represent to your Committee their views as to clauses 3 and 4 of the Reference from the Ministry of Reconstruction. In accordance, therefore, with your request, we have now the honour to append a Summary of the views we are instructed to entrust to your Committee upon the subjects covered by the clauses referred to.

For greater clearness we have sub-divided the paragraphs of the Reference under headings, as follows:

Paragraph 3.

A. "In the event of the supply of material or labour being insufficient to fulfil the total building demand."

B. "To consider the principles and method by which the priority of various claims should be settled."

C. "And to report what steps are necessary to ensure that the manufacture of the materials, so far as they are at present inadequate, shall be extended in time to secure sufficient quantities for use when required on the cessation of hostilities."

D. "And to recommend what steps should be taken during the War to facilitate a prompt commencement of building work at that time."

Paragraph 4.

E. "Generally to consider and report upon any conditions affecting the building trades which tend to cause unduly high prices."

F. "And to make recommendations in regard to any measure of control which it may be desirable to exercise over the purchase, production, transport, or distribution of material."

SUMMARY OF VIEWS TO BE SUBMITTED.

Paragraph 3.

A. In view of the long period during which building operations, other than those directed to the furtherance of War, have been practically suspended; the dislocation of manufactures and shipping, and the shortage of labour, we think it may be assumed as certain that the supply of materials will be insufficient to meet all demands at the termination of the War.

B. One claim only should be considered as entitled to priority, viz.: that of works to be executed by, or on behalf of, the Government for immediately urgent National needs. All other claims should be regarded as equal; in other words, markets sh be left free and unfettered by restrictions, so production may be stimulated to its utmost, prices thereby reduced to a normal level at the ear possible moment.

C. An increased output of material during War depends almost wholly upon the amoun labour available for the purpose. To deal with question would involve consideration of the rel allocation of man-power to Military and (necessities; and it does not appear to us that we usefully offer suggestions upon such a matter.

D. For the purpose of the urgent Governn works referred to under heading B, we recomm that material should be accumulated and secure advance, by immediate purchase of available sto by such ear-marking as may be practicable bot home and abroad, and by expediting present pro tion so far as that may be done without affecting conduct of the War.

For all other purposes, the Building Trade sh be encouraged to proceed with the organisation secure basis of the immense future operations w it will be called upon to undertake. To this en authoritative assurance should be given at once the control of Government Departments, whethe regards the supply of material or the erectio buildings, will cease at the termination of hostili Without such an assurance all the plans of pri enterprise can be but tentative and uncertain. necessary that security should be assured for projects before these can be usefully formulated

Paragraph 4.

E. The chief cause of unduly high prices is present system of payment for time occupied ins of for results obtained. This system tends bot restrict output and to diminish the purchasing v of wages paid. There should be no limit to income of a workman, except that of his capacit earn it.

F. We believe that the abolition of control is true, and only sound, method whereby market material, and the building industry generally, be restored to healthy conditions. We endorse opinion of Lord Inchcape ("Times," April 22 l that "the less Government officials or quasi-Gov ment officials are permitted to interfere with trade better will it be for the country and for its finar stability. . . . There is an idea in some qua that the Government, through officials, could advantage to the community, carry on the busine the country. No more fatal error could be concei No greater delusion ever took possession of human mind."

"The day of peace," writes one of the g London building contractors, "should also be day of liberation for British industry from the fe to which it has patriotically submitted during time of National danger."

We entirely agree, and have the honour to be,

Your obedient Servants,

HENRY T. HARE,
President, R.I.B.A.

PAUL WATERHOUSE,
Vice-President, R.I.B.A.

JOHN W. SIMPSON,
Past Vice-President, R.I.B.

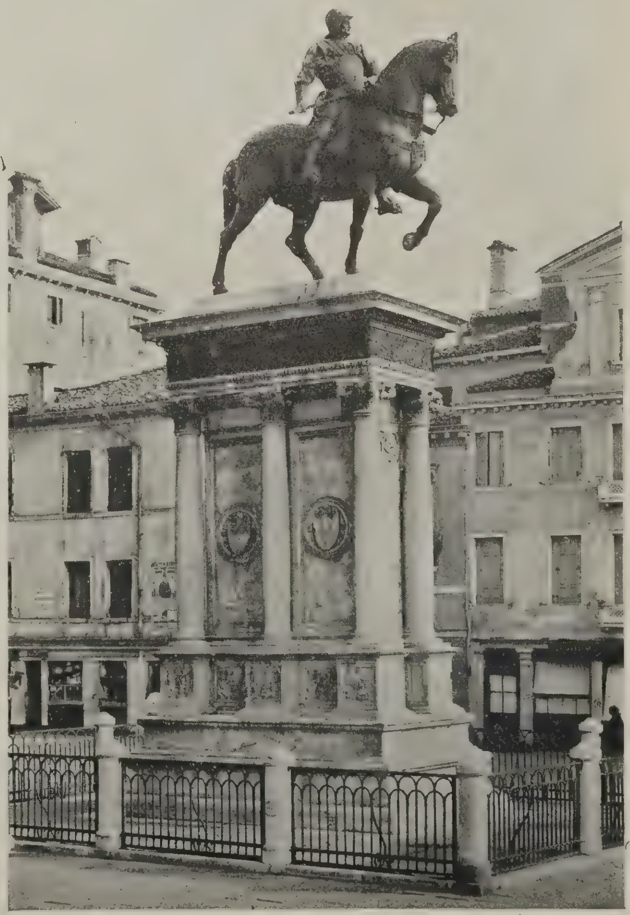
THE PLATES.

'ing Edward VII. Hospital for Crippled Children, Sheffield.

THIS hospital, designed by Mr. A. W. Kenyon, A.R.I.B.A., is built on a beautifully wooded slope in the Rivelin Valley, on the outskirts of heffield. It forms part of the City of Sheffield's emorial to the late King Edward VII. The land as presented by the late Duke of Norfolk, and the inds for the building were subscribed by the citizens f Sheffield. The object of the hospital is the cure of ippled children, and the idea of the building is to ive as many facilities for outdoor treatment as are ompatible with the district. The building consists of central administration block, six open-air wards, oservation block, operating theatre, X-Ray rooms, ıst rooms, etc. The wards are grouped so as to give ie maximum amount of sunshine, and are served by a entral corridor. The sanitary blocks are placed at ie administrative end of the wards, so as to avoid any rojecting blocks which would shut off sunshine or bliterate the view. The exterior is of local stone otained from the site, and the tiles are red sand-faced. he entrance-hall contains four casts by Mr. Alfred rury, A.R.A., the originals of which form part of the ase to the statue of King Edward VII., erected in heffield. Messrs. Thomas Roper and Sons, of heffield, carried out, with their own workmen, the hole of the builders', carpenters', joiners', plumbers', lasterers', slaters', and painters' work. All the buildıg stone was quarried from the site. The floors and oofs were constructed by the Kleine Patent Fire-esisting Flooring Syndicate, Ltd., of London. The entralised heating and hot-water service plant was ıstalled by the Brightside Foundry and Engineering o., Ltd., of Sheffield, London, and Birmingham. Hot ater has been adopted as the heating medium on the ow-pressure system, generated by means of boilers xed in a central chamber at the rear of the hospital, ie circulation of the water being accelerated by means f electrically driven pumps. A steam boiler plant as also been installed in connection with the disinfectıg apparatus, milk-sterilizer, drying-rooms, etc., and lso a special system for the heating of hot-water ottles required in the various wards. Other subontractors were: Messrs. Nyewood, London, tiles; lessrs. Woodhouse and Co., Sheffield, sanitary ttings; Messrs. Thos. Ashton and Son, Ltd., heffield, electric wiring, cooking, and fittings; Messrs. urgess and Co., Liverpool, wood block floors; Messrs. eter Poli, Sheffield, terrazzo paving.

The Colleoni Statue, Venice.

The second great memorial of war belonging to the talian Renaissance is the magnificent monument to eneral Colleoni in the centre of the Campo Santi iovanni e Paolo at Venice, where it was unveiled on larch 12, 1496. This statue was modelled by Andrea 'errocchio, a pupil of Donatello, and cast in bronze fter his death by Alessandro Leopardi, who also esigned the splendid pedestal on which the statue is et (see double-page Supplement). A considerable ontroversy circled around this monument. Bartoommeo Colleoni, who entered the service of the 'enetian Republic in 1448 after having fought against , left the State a large sum of money for the erection f a statue to his memory. Verrocchio was given the ork, but when it appeared that the commission was be divided he threw up his task and left Venice or Florence. Eventually, however, by persuasion and ıreat, he again set to work, and at the time of his eath, in 1488, the model was complete. Hence the rtistic affront on the part of Leopardi, who, on the trength of having reproduced the model in bronze, ıscribed his own name as author on the belly-band of ie horse—ALEXANDER LEOPARDUS V. F. OPUS. Mr. Symonds, however, in his "Renaissance in Italy," makes a strong claim for Leopardi. He acknowledges that the general conception must be attributed to Verrocchio, "but the breath of life that animates both horse and rider, the richness of detail that enhances the massive grandeur of the group, and the fiery spirit of its style of execution, were due to the Venetian genius of Leopardi. Verrocchio alone produced nothing so magnificent." Much has been written in appraisement of the Colleoni monument, and as representative of the great esteem in which it is held two extracts are here given. Professor Middleton says: "This is perhaps the noblest equestrian statue in the world, being in some respects superior to the antique bronze of Marcus Aurelius in Rome, and to that of Gattamelata at Padua by Donatello. The horse is designed with wonderful nobility and spirit, and the easy pose of the great General, combining perfect balance with absolute ease and security, is a marvel of sculpturesque ability. Most remarkable skill is shown by the way in which Verrocchio has exaggerated the strongly marked features of the General, so that nothing of its powerful effect is lost by the lofty position of the head." An even finer estimate is given by Professor Baldwin Brown. "The pedestal," he says, "so important an element in the monumental effect of statuary, is justly proportioned to the effigy, which is placed upon it so far to the front that there is a sense of forward movement without any hint of insecurity. Man and horse are as one; the embodiment of irresistible force held severely in reserve. The horse, the noblest representative of his own ponderous type in art, was studied by Dürer for his Knight and Death, and the suggestion of the measured earth-shaking tread of the creature is not less impressive than the gaze of the impassioned rider as he glares from under the shadow of his helm."



THE COLLEONI STATUE, VENICE.

QUICK CONSTRUCTION FOR SMALL HOUSES.

In order to meet the high cost and scarcity of building materials, principally brick and lumber, Mr. E. G. Perrot, of the firm of Ballinger and Perrot, architects, of New York and Philadelphia, has devised and perfected a system of construction which makes the erection of large numbers of permanent and durable houses in record-breaking time a possibility. This is styled the concrete stud and cement-stucco construction.

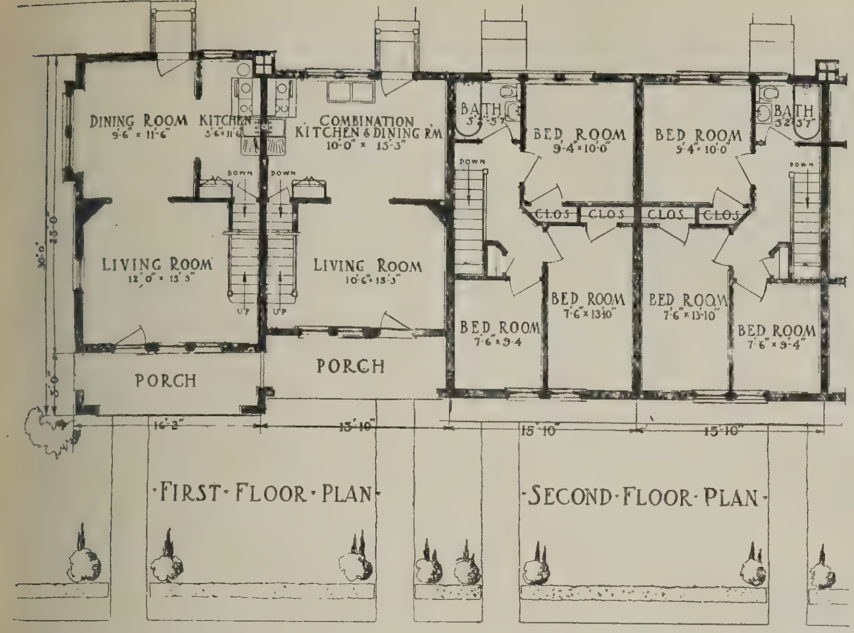
In this type of construction, reinforced concrete is substituted for masonry walls; not, however, of the poured monolithic system customarily used heretofore, nor the pre-cast concrete method, but by applying the concrete either by hand or by means of the cement gun. Concrete is particularly adaptable to this form of construction because it is permanent, fire-resisting, sanitary, and waterproof; and when used in the large scale operations contemplated at the present time it makes for maximum economy by employing labour-saving machinery and re-using equipment. Furthermore, concrete is generally a more nearly local building material than any other, and its use not only materially assists in relieving the already overtaxed transportation facilities of our country but also eliminates the delays in construction due to embargoes and irregular shipments.

On account of the heavy demands by the national Government in connection with its war programme, nearly all the available lumber is absorbed as far as it arrives. Private building activities using lumber have practically ceased. According to statistics computed for Boston, citing it as only one case indicative of the situation generally, the total quantity received in 1917 was less than that of any of the preceding three or four years by about seventy-five million feet. This reduction is not so much due to a falling off in the demand, owing to the advanced prices, as it is to the inability to supply it. Difficulties of transportation, unusually severe weather, all aggravate the situation to such an extent that it is imperative to obtain relief by adopting a form of construction in which the use of lumber is reduced to a minimum.

It is confidently felt that the concrete stud and cement-stucco construction is without exception the cheapest and best method to be employed for the quick erection of industrial houses at any time and particularly during the present shortage of labour and material. It requires the fewest labourers, the shortest time for erection, less concrete per house, and, having hollow walls, produces a drier house than obtained by any other form of masonry construction. It is likewise adaptable to base hospitals, barracks, one-storey factories, etc. In factory buildings, where no interior finish is required, the interior wall surfaces may be metal-lathed and concreted in the same manner as described for the exterior.

After the cellar has been excavated a stone or concrete foundation wall is built. In the latter case the concrete is poured from a travelling mixer, with loader, into wood forms made in panels so as to be easily removable. The first-floor wood joists are then set in place on the foundation wall. On these a wood frame, consisting of studs, joists and rafters, is erected in the usual manner of building the skeleton of a frame house. Every fourth stud is doubled, allowing a three-inch by four-inch space between, which is filled with concrete to form a concrete stud. At the second floor and roof levels, a ledger board, with bottom attached, is placed over the studs and so arranged that, when filled with concrete, they form beams, which, with the vertical concrete studs, make a homogeneous concrete frame. The concrete studs when completed are continuous from foundation to roof. On top of the lower ledger board the second-floor joists are set, then the second-storey studs, and so on. When this frame is completed, including the party wall, and the roof is on, heavy waterproof pa
nailed to the outside of the exterio
studs, leaving the space betwee
doubled studs open to receive the co
Over the waterproof paper the meta
or concrete reinforcement, is stre
The concrete studs are reinforced
steel rods fastened to the metal lath.
ledger boards have a bottom wood pi
form, so that when filled with co
they act as beams to carry the floor
and roof rafters. The wood studs
the dual capacity of supporting the c
stucco while it is being applied a
furring strips in the finished build

Everything is now ready to ap
1½-in. to 2-in. thick concrete coating
exterior by means of the cement gu
ing the space between the doubled
to form the continuous vertical co
stud. If for any reason the ceme
is not available the continuous v
studs and ledger boards can be
with concrete and the exterior meta
coated with 1:2 cement mortar by
The concrete is 33 per cent. dense
ordinary poured concrete and about
as strong. Colour effects may be ob
by adding mortar stain to the co
while it is being mixed. No further
ment of the exterior wall surface is n
The rapidity with which this type of
may be erected is dependent only
the number of cement-guns put into
taneous operation, or, if the work is
by hand, the number of workmen em
at any one time. Particular attent
called to several of the chief poi
favour of this construction, which
First, after the framework of any n
of houses is once erected the ceme
be applied without any interrupti
contradistinction to the usual proced
stuccoing a part of the work, then s
the labourers and their materials to a
portion while the first is being com
and then having to shift them back
Second, the numerous cracks so co
to all other forms of concrete constr



YPICAL PLAN OF WORKING MEN'S HOUSES. BALLINGER AND PERROT, ARCHITECTS.

re entirely eliminated in this process, ecause the vertical concrete studs carry l the load so that there is no shrinkage settlement to contend with in this monothic structure. Party walls merely have a im coat of white plaster applied to the ement for a finish, which makes a saving n this wall alone of at least eight cents er square foot over the usual plastered rface. Either of these two latter methods construction compete very favourably ith frame, especially now when wood is pensive and difficult to obtain.

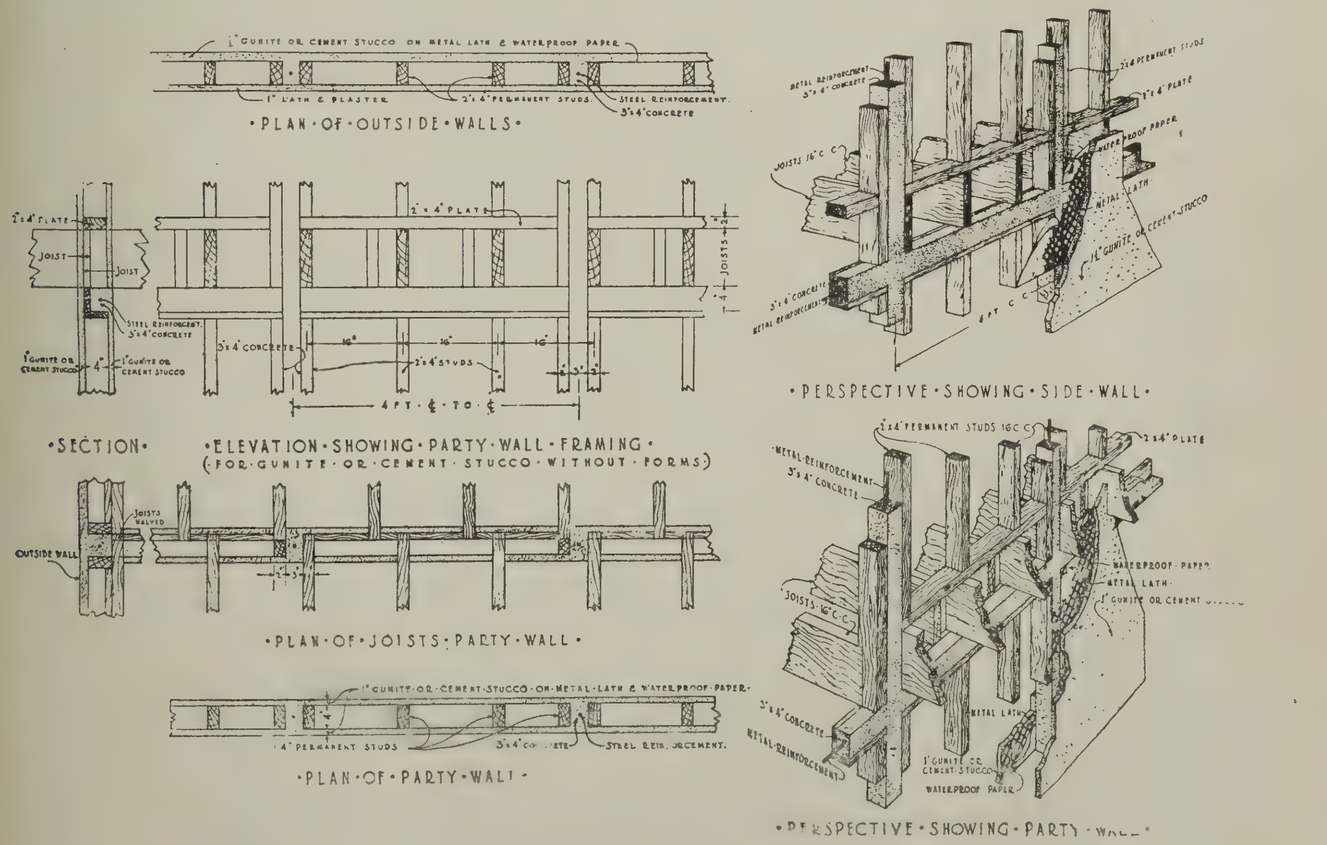
The fundamental idea involved is to produce a cheap semi-fireproof house, i.e., one which may be built with the same rapidity and cost as an all-wood structure. If it is desired to increase the fire-resisting qualities of the building, metal lath, instead of wood lath, may be used on interior surfaces which are to be plastered.

The roof, whether flat or pitched, lends itself very readily to concrete construction. The concrete may be applied in the same manner as herein described for the vertical walls, but the expensiveness of the concrete roof construction necessary to carry the roof itself makes it prohibitive for the type of building in which low cost is a prime essential. For the pitched roof there are numerous other good, economical, and easily obtainable fire-resisting materials upon the market, including asbestos and asphalted-felt shingles, slate, so-called "ready" and built-up roofings of felt, tar, and gravel.

No other form of construction, to my knowledge, can produce a house of such low first cost, at the same time possessing the fire-resisting qualities inherent in the conventional house built with exterior party walls of brick as the concrete-enveloped wood-framed concrete stud and cement-stucco house. The essential differences in this type of building are in the wall construction, which, in all other forms of masonry walls, must be completed before the floors, roof and interior partitions can be built, and which must be furred on the inside face to make an air space between the exterior wall proper and the plaster in order to obtain a dry wall.

By standardising the style of the houses and applying efficient methods in their erection, a row of ten two-storey houses, as shown in the illustration, can be completed ready for occupancy in three weeks from the time the cellars are dug. If erected in groups any number of rows can be built at the same time, the rapidity of the work depending only upon the number of cement guns put into simultaneous operation. When it is considered that a house can be completely concreted in two and one-half days the possibilities in rapidity of construction by this process are apparent.

[For the substance of this article, and for the illustrations here reproduced, we are indebted to the courtesy of "The American Architect."]



DETAILS OF CEMENT-STUCCO AND FRAME CONSTRUCTION FOR WALLS OF WORKING MEN'S HOUSES.

BALLINGER AND PERROT, ARCHITECTS.

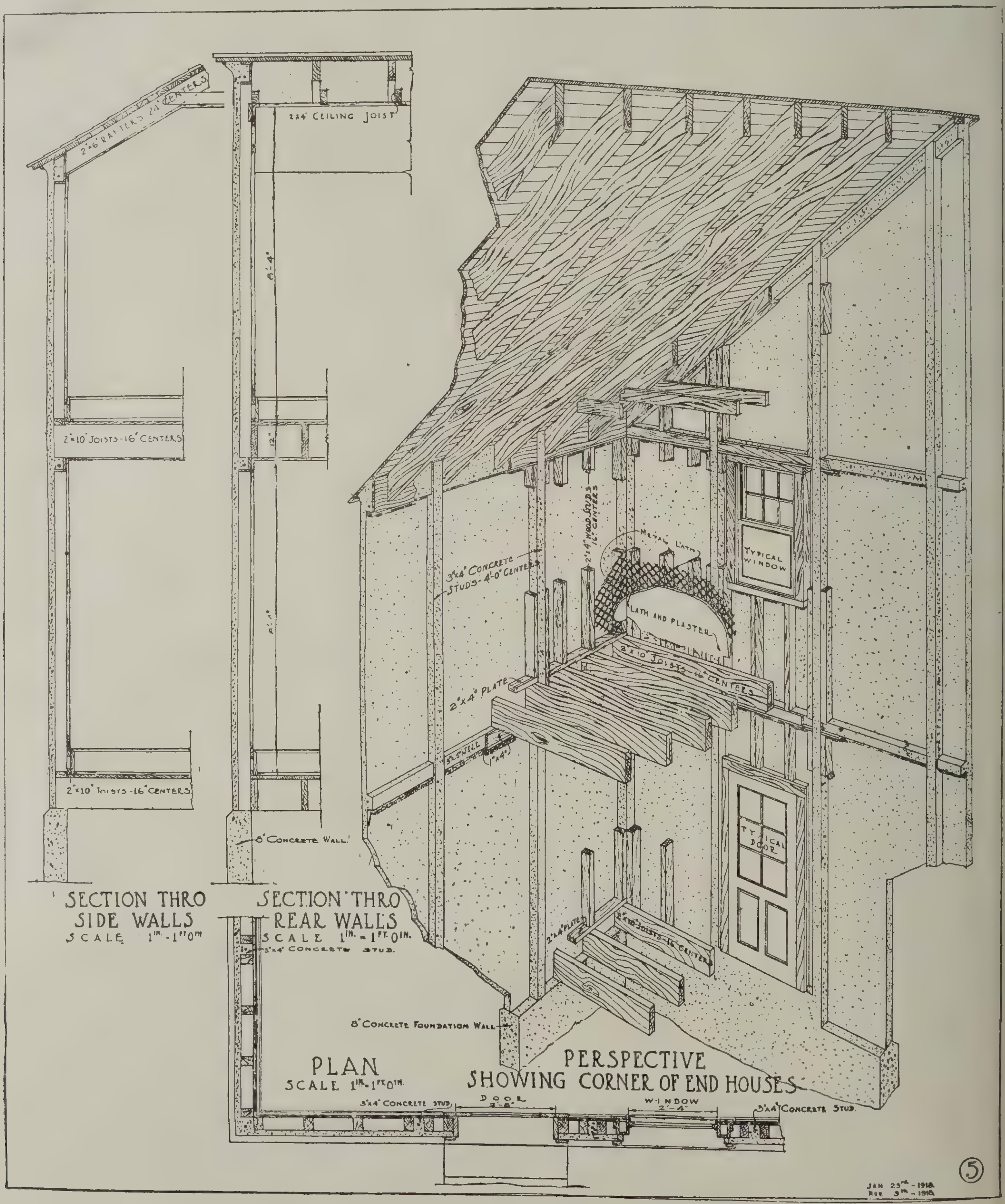
THE NEW TIMBER ORDER.

The Board of Trade direct the attention of all persons in this country concerned with dealing in timber of any kind outside the United Kingdom to the terms of the Timber Order, 1918, published in the "London Gazette" for April 26 and printed below. Under this Order a permit is necessary from the Controller of Timber Supplies, Board of Trade, Caxton House, Tothill Street, Westminster, London, S.W.1, before entering into any transaction relating to timber grown outside the United Kingdom and not actually in stock in the United Kingdom. A permit is also necessary before receiving or arranging for the transport of any such timber not in stock in the United Kingdom. Holders of licences to import are not excepted and must apply to the Controller of Timber supplies before arranging for the charter of tonnage or taking delivery of timber purchased abroad. The present Order will, it is expected, be followed before long by another, regulating not only dealing in timber, but also its use in this country, whether grown outside or inside the United Kingdom. Virtually the entire importation of timber will be effected on account of the Government, this arrangement following upon prolonged negoti
between the Controller of Timber Su
and representatives of the timber tra

The Timber Order, 1918, is not de
to interfere with the normal busin
firms established in the Dominio
colonies as timber producers, b
intended to prevent speculative tr
tions in timber in the countries of
by or on behalf of persons in the U
Kingdom.

Text of the Order.

The Timber Order, 1918 dated th
day of April, 1918, made by the Bo
Trade pursuant to Regulations 2 E



DETAILS OF CONCRETE AND FRAME CONSTRUCTION FOR WORKING MEN'S HOUSES.

BALLINGER AND PERROT, ARCHITECTS.

(See pages 238 *and* 239 *)*

J. of the Defence of the Realm Regula-
ns.

The Board of Trade deeming it expe-
ent to make further exercise of their
wers under the Defence of the Realm
gulations as respects timber, hereby
der as follows:

. Until further notice no person shall
the United Kingdom buy, sell, or
ceive, or enter into any transaction or
gotiation in relation to the sale, pur-
ase, or transport, of any timber grown
tside the United Kingdom which is not
tually in stock in the United Kingdom
the date of this Order, except under and
accordance with the terms of a permit
anted by or on behalf of the Controller
Timber Supplies subsequent to the date
this Order.

2. Infringements of this Order are
ences against the Defence of the Realm
gulations.

3. This Order may be cited as the
mber Order, 1918.

HOUSING TOPICS.

Housing at Swansea.

Swansea Council intend to bring for-
rd a scheme for erecting five hundred
rkmen's houses.

Garden Suburbs for Bristol.

The Bristol Council have adopted a
heme for building 3,009 houses in five
rden suburbs, and instructed the com-
ttee to report upon the probable cost of
oo additional houses, subject to the
proval of the Local Government Board.

Housing and Health.

Mr. Hayes Fisher, addressing a gather-
g at Arundel Castle, urged the necessity
vigorously pursuing a policy of mater-
ty and child welfare, and outlined the
vernment scheme for securing efficient
atment of necessitous mothers and
fants up to five years, whereby half the
st would be borne by the State and the
her half be raised by local authorities.
ith the help of the benevolent public he
d no doubt that such expenditure would
ing forth excellent fruit in preserving
e lives of many mothers and children
ich would otherwise be lost. To his
nd, the housing question was more at
e bottom of the whole of the health ques-
n than anything else, and before he left
e Local Government Board he hoped to
ve laid on the table of the House a great
tional housing policy.

Housing Requirements in Scotland.

In the House of Commons, answering
lonel Sir J. Hope, who asked the num-
r of houses which the local authorities
nsidered to be required in Scotland, Mr.
unro stated the information given by
cal authorities in Scotland was in reply
a circular issued by the Local Govern-
ent Board for Scotland in August last.
that circular the Board stated that the
vernment recognised that it would be
cessary to afford substantial financial
sistance for housing schemes from public
nds, and asked local authorities to fill
a form indicating, among other things,
e number of houses which they would be
epared to provide on the assumption that
ancial facilities would be afforded by
e Government. He understood that the
nditions set out in the corresponding
rcular issued in England were in similar
rms. From the schedules received up
date, it appears that the total number of
uses which local authorities consider to
required in Scotland is 108,902.

Mr. George Cadbury on Ways and Means.

Mr. George Cadbury, jun., chairman of the Housing and Town-Planning Committee, Birmingham, consulted by a "Birmingham Daily Post" representative, takes the view that the outlook is not much improved by the recent statement of the President of the Local Government Board. Mr. Hayes Fisher, he pointed out, added very little to what we already knew with regard to the Local Government Board's scheme for assisting local authorities to meet the shortage of houses. The main effect of the debate is that the scheme has now Parliamentary sanction, and therefore is one which local authorities may properly act upon. "The debate itself," he said, "brought out nothing new. Mr. Fisher pointed out that the replies to the questions issued in July indicated that private enterprise would do very little. This opinion has been strengthened by the terms of the new scheme. In fact its greatest defect is that no provision is made for the assistance and stimulation of private enterprise. For this state of affairs the representatives of private enterprise are largely to blame. I have not yet been able to discover any really constructive proposals as to how they can be adequately assisted to meet the present abnormal conditions. Certainly they have complained of certain legislative disabilities under which they labour, which I fully appreciate, and we have urged the Government to remove them, but when we come to the present acute financial difficulties, the high cost of labour and materials, and the consequent increase in rentals, so far as I am aware, no concrete remedies have been proposed. The Housing Committee are at the present time seeking to find a way of assisting private enterprise and public utility societies, and they would welcome any useful suggestions on this head. Whether raising the compound limit, or the furnishing of cheap capital, in themselves would accomplish much, I very much doubt, but these aspects of the question are being thoroughly explored. One thing is unanimously agreed upon by all parties, that the Corporation should acquire large blocks of land at a reasonable price, and be prepared to develop them by laying out roads, etc., and either selling or letting plots to builders at reasonable prices. The Housing Committee are actively following up this line of action in the hope of getting option to purchase after the war at reasonable prices." In considering the question of the future of housing, Mr. Cadbury said it must be borne in mind that rents must inevitably rise. "One of the serious difficulties is that the rents of new houses erected will be greatly above existing rents, and that as soon as the Rent Act is repealed the rents of existing houses will rise to famine levels, and a huge unearned increment will be put into the pockets of existing landlords. This partly explains the antipathy of private enterprise to the Government proposals, which certainly will steady the rents of new houses. A means must be found by which, while securing to private enterprise a fair return on outlay on new houses, a great unearned increment is not put into the pockets of existing house-owners. While I say this, it is inevitable that all rents must rise to a certain extent to meet the increased rates, cost of repairs, higher cost of collection, and, in many cases, a higher rate of interest on mortgages. This rise is, of course, perfectly legitimate. In any event, whether private enterprise comes to the aid of the community or not, the Corporation is the responsible authority, and should an adequate supply of houses not be forthcoming, they will be compelled to act. Private enterprise is on its trial, and the next few weeks should show whether it is prepared to make an effort to meet the demand or not. From present indications I am afraid that they will not do very much, but I should welcome any suggestions they would like to put forward, and they should certainly have the greatest consideration from the committee."

RESTORING ST. PAUL'S CATHEDRAL.

One piece of work which has gone on uninterrupted by the war is the restoration of St. Paul's. Colonial and American soldiers who visit the cathedral—and the majority of sightseers to-day are men in khaki—pause and wonder when they are confronted by the massive hoarding which conceals one of the eight great pillars supporting the dome. Three years ago that hoarding was first erected, and every day since, except when services are in progress, a rhythmic sound of chipping disturbs the silence.

The work is but the beginning of a vast scheme of restoration which the cathedral is undergoing, and which was rendered necessary by the sinking of the building and the shrinkage of new material. Continual subsidences have had the effect of throwing much of the weight of the structure on the Portland stone used for facing purpose, with the result that this material has been crushed and cracked. Examinations showed that this damage was worst in the case of the piles on the west side of the south transept arch, and for that reason work was begun there.

In order that no great strain should be placed on any particular portion, the operations have gone on very slowly and only a few stones removed at a time, but the pile is now all but completely restored, and it is expected that the hoarding will be removed before long.

But this will by no means complete the work. The whole of the building is being closely examined for defects, and the preparations made in the crypt for the carrying on of the work show that it will continue for several years.

For some time now an extensive portion of the crypt has been taken over by workmen, and here it is that the Portland stones are cut to the exact size of those which they are to replace.

Mr. Bowler, the clerk of the works, when interviewed by a "National News" representative, said that the restoration was well in hand, and that no fears were entertained as to the safety of the building. "We are very greatly hampered," he said, "owing to the shortage of labour and the lack of funds, but nevertheless the work is going on much faster than we expected it would. Most of the mischief dates from 1781, when Mylne was the architect responsible for the work of restoration done at that period. Cracks similar to those existing to-day made their appearance at that time, but, probably owing to lack of foresight, he failed to have the faulty stones cut out and only had portions renewed, facing up the exterior with new stone. The work looks all right when completed, but it has made restoration to-day a much more serious and lengthy process than it would otherwise have been.

"In company with the architect I have visited every part of the cathedral, and we have tapped practically every stone.

A hollow sound reveals a faulty stone behind, and where this is the case new material will have to be inserted.

"There is not a portion of the building I haven't visited. I have even been in the ball. Many of the cracks can only be reached by the aid of a basket suspended from a beam above. It is fascinating work examining the cathedral, but it is the easiest thing in the world to get lost in it."

NEWS ITEMS.

A Correction.

We regret that in our notice of the architectural section of the Royal Academy Exhibition, published in the issue for May 8, the name of Mr. John S. Alder was, by an accidental transposition of letters, wrongly given as Mr. John S. Adler.

Another City Church Threatened.

A scheme is in contemplation for the demolition of the Church of St. Katherine Coleman, Fenchurch Street, London E.C. The Bishop of London has stated that he will not move in the matter unless he is assured that the parishioners favour the proposal.

War Bonus in Southwark.

Southwark Borough Council have decided to grant a further war bonus of 12½ per cent. to their employees affected by the agreement between the London Master Builders' Association and the National Union of General Workers. The estimated cost is £10,000.

Garden Suburbs for Bristol.

The Bristol City Council has drawn up a scheme for the creation, after the war, of five garden suburbs on the outskirts of the city and has provisionally bought 168 acres of land. The Corporation will be recommended to authorise the securing of further land, estimated in all at 582 acres.

Archbishop Abbot's Hospital, Guildford.

After consulting Mr. H. Redfern, F.R.I.B.A., the Governors of Archbishop Abbot's Hospital, Guildford, have decided to spend £300 on the preservation of the north and east windows of the building, the glass in which is attributed to the brothers Van Linge, and is 297 years old.

Font Canopy as Memorial.

A beautiful addition to the church has been dedicated at All Saints', Boyne Hill, in the form of a canopy to the font, which was given by the relatives of William Howe Bissley, late lieutenant in the Royal Berkshire Regiment, who was killed in action August 16, 1916. The canopy is from the design of Mr. George Fellowes Prynne, F.R.I.B.A.

War Memorial at Great Easton.

A war memorial on the village green at Great Easton, Essex, unveiled by General Colvin, C.B., M.P., consists of an octagonal column on a square base. The names of the fallen are inscribed in letters of gold just above the base. The column is surmounted by a crucifix, a fitting memorial to those who have made the great sacrifice. The monument, 20 ft. in height, is in Portland stone.

Nottingham and Derby Architectural Society.

At the fifty-fifth annual meeting of the Nottingham and Derby Architectural Society Mr. Harry Gill, M.S.A., presiding, the Council reported that although the income from subscriptions had considerably fallen owing to nearly forty members being on active service, the loss on the year was only £3 5s. 3d. The society was included in the North Midland area for the national cottage competition, and the president had been appointed to act as one of the assessors. The Council were proud to place on record the following military distinctions recently awarded their members: Major C. H. Calvert, the Military Cross; Lieut.-Col. T. C. Howitt, the Distinguished Service Order; Lieut. J. Woollatt, the Military Cross.

Trinity Church, Loughborough.

An appeal is being made for funds to complete the restoration of Holy Trinity Church, Loughborough. A month or two ago this church was seriously damaged by fire, and it has been, and still is, useless for public services in consequence. It is estimated that the cost of complete restoration will be £5,000 and towards this £3,895 has been obtained from the insurance office and other sources. This leaves a little more than a thousand pounds still to raise.

Commandeered Buildings.

In the House of Commons on May 13, Sir A. Mond (First Commissioner of Works), replying to Captain Carr-Gomm, said the greater part of the west side of Kingsway had been taken over for the Aircraft Production Department of the Ministry of Munitions, and 122 firms had been dispossessed. The compensation payable would be assessed in the usual manner by the Defence of the Realm Losses Royal Commission. He was not yet in a position to state the actual cost of the adaptation of the premises.

The Sunken Roads of the Somme.

In a letter to the "Spectator," Mr. Frank Fox conjectures that the sunken roads of the Somme (which are matched in all lands of similar soil conditions which have been tilled for many years) are probably farmers' tracks. It would seem that the farmer of past generations made cart tracks from his fields to the main roads by scraping the soft top-soil aside, and continued to do this as the track became muddy until the track became a great broad ditch paved with the hard subsoil. When a more permanent road was needed it most often followed the old sunken track, the subsoil pavement being covered with metalling. Mr. Fox has noted on the Somme the beginnings of new sunken roads where military emergency tracks were made across country.

Port Sunlight War Memorial.

At the invitation of Lord Leverhulme the General Committee, representative of every department and section of the business and village of Port Sunlight, have unanimously approved Sir W. Goscombe John's first model of the proposed memorial, also recommending a prominent site in the suburbs. A public meeting, at which Lord Leverhulme, and the Hon. W. Hulme Lever were present, unanimously endorsed the Committee's recommendation. Lord Leverhulme expressed his disapproval of the suggestions in Parliament that the best memorials were the building of cottages. "If we have the money and labour to build cottages let us build them but view them entirely apart from a memorial to the greatest acts of heroism we have ever known." The sculpture work, when erected, will be composed of a tall cross, at the base of which will be a group in bronze of heroic size (7 ft. 6 in.), and will
represent a soldier defending wome
children, a fallen comrade being a
soldier's side. The names of those
have given their lives in the war w
inscribed at the foot of the monumen
names of others will be placed on th
taining wall, between bas-reliefs
senting the Navy and Air Force. F
ing each opening in this wall will be
ture groups, children, also in bronz
is estimated that the total cost will a
to about £10,000.

Halifax Parish Church.

The Halifax Antiquarian Society
issued to their members an inter
paper by Mr. T. W. Hanson dealing
the architectural evolution of the H
Parish Church. Although there i
dence that a Norman church exist
the spot, Mr. Hanson has been cont
deal with the existing structure, a
trace with the aid of a series of p
the stages, as he conceives them, by
the present building assumed the f
now presents. This was a work
period 1455-1530. To the modern
quary of a quickened and schooled i
nation an old historic building is a
an organism with a soul of its ow
body having a characteristic evolutio
changes through which it passes bei
no means dictated by mere caprice
the demands of utlity.

COMPETITION.

Welsh Housing and Developme
Association: Cottage Design Compe

In view of the explanations given
promoters to the questions raised
them by the Society, and on their
taking that the names of the profes
and lay assessors, which have been
to the Council, will shortly be annou
the Society has removed its embar
the competition, on the understandin
Clause 21 of the conditions to whic
Council objects on principle is not to
a precedent in normal times.

A COMMITTEE ON HOUS
LOANS.

A Committee has been formed b
Minister of Reconstruction with th
lowing terms of reference: "To co
whether by the extension of ex
facilities or otherwise, public credit
with advantage be utilised for the pu
of making advances for the provisi
houses for the working classes afte
war to persons and bodies other than
authorities, and whether it is desira
establish, for the purpose of making
advances, State and municipal ho
banks or other machinery, and if
what lines and subject to what condit

The Committee is constituted a
lows: Mr. Hy. Hobhouse, chairman
R. Barrow, City Treasurer, Liver
Mr. J. A. E. Dickinson, Local Go
ment Board; Mr. Thomas Goodwin,
manager, Co-operative Wholesale So
Sir Harry Haward, Comptroller, L.
Mr. J. G. Head; Mr. Robert H. M
secretary, Association of Bu
Societies; Mr. Edmund H. Pa
managing director Barclay's Bank;
R. L. Roiss, Ministry of Reconstru
Mr. E. H. Strauss, M.P.: and Mr.
Wallace, secretary.

Communications should be address
the Secretary, 2, Queen Anne's
Buildings, S.W.1. (Editorial com
p. 231.)

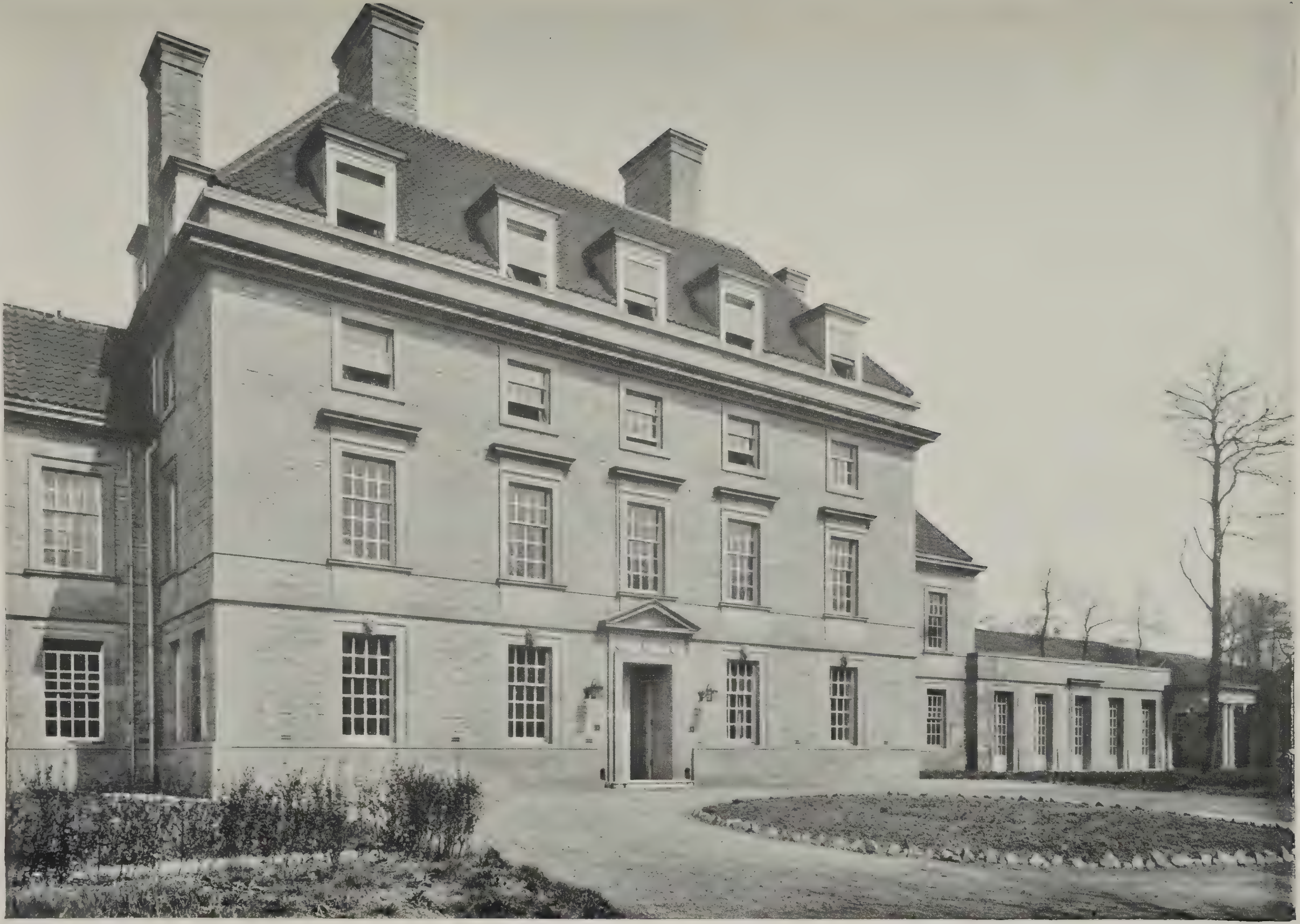


Photo : Thomas Lewis.

CURRENT ARCHITECTURE (SERIES V.). XIX.—KING EDWARD VII. HOSPITAL FOR CRIPPLED CHILDREN, RIVELIN VALLEY, SHEFFIELD: ADMINISTRATIVE BLOCK.

A. W. KENYON, A.R.I.B.A., ARCHITECT.

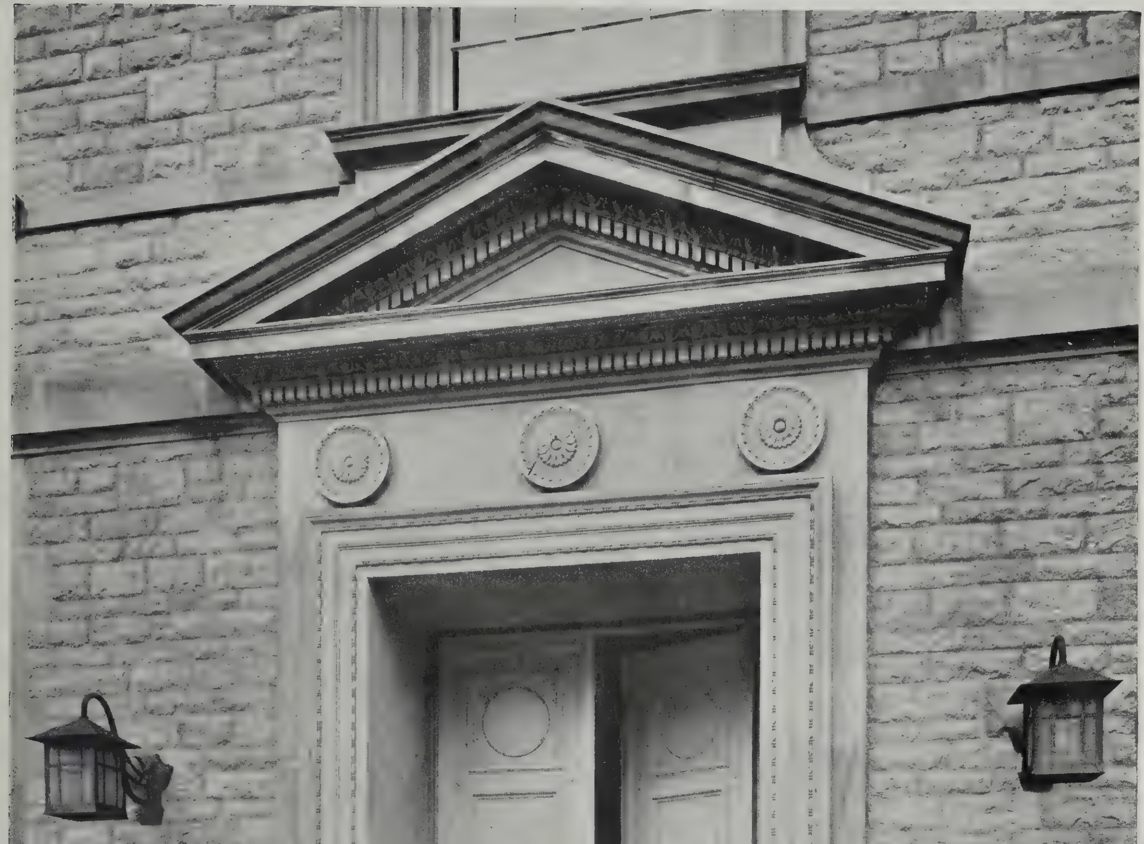


Photo: Thomas Lewis.

CURRENT ARCHITECTURE (SERIES V.). XX.—KING EDWARD VII. HOSPITAL FOR CRIPPLED CHILDREN, RIVELIN VALLEY, SHEFFIELD: ENTRANCE DOORWAY.

A. W. KENYON, A.R.I.B.A., ARCHITECT.

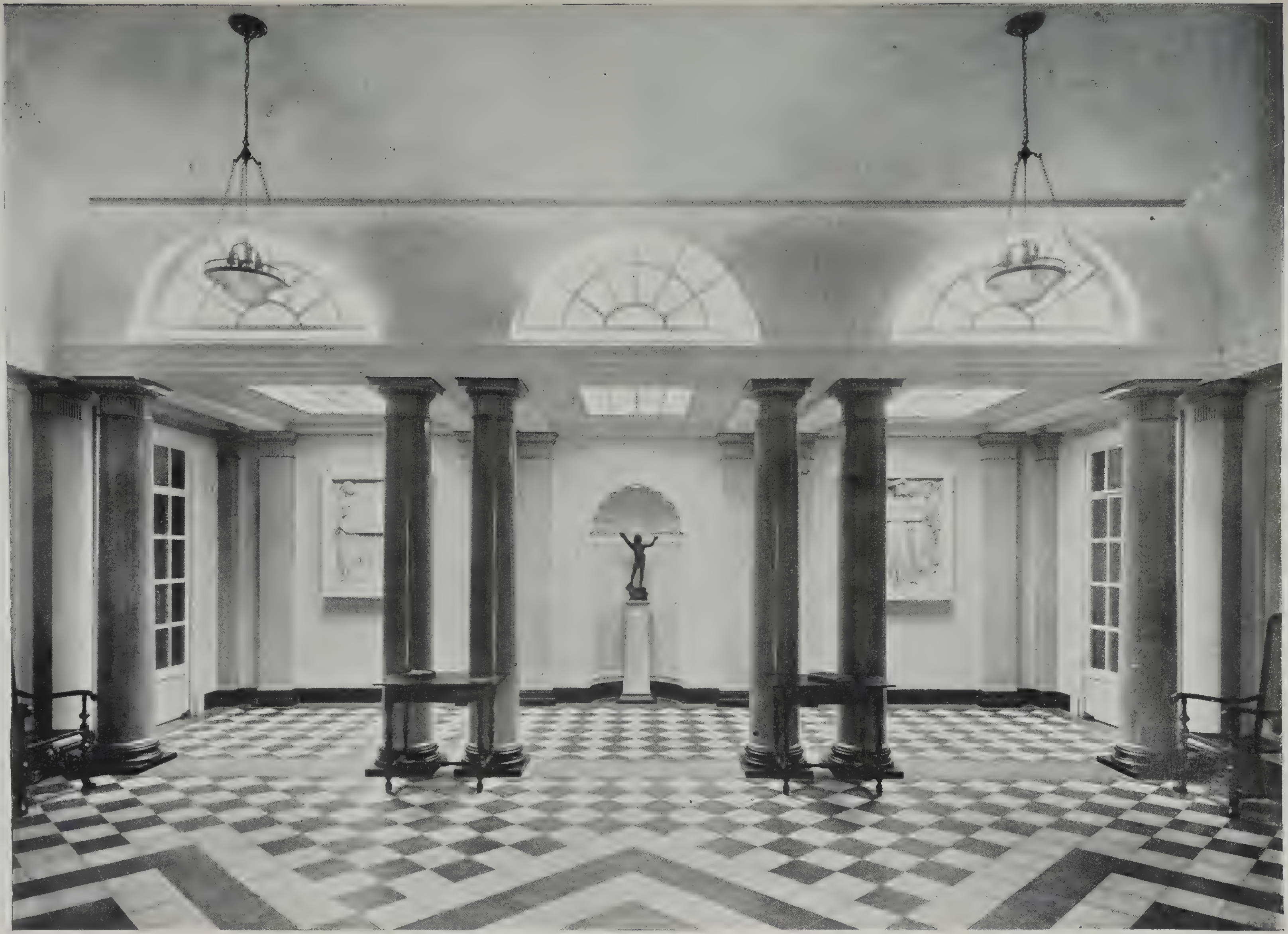


Photo: Thomas Lewis.

CURRENT ARCHITECTURE (SERIES V.). XXI.—KING EDWARD VII. HOSPITAL FOR CRIPPLED CHILDREN, RIVELIN VALLEY, SHEFFIELD: MAIN ENTRANCE HALL.

A. W. KENYON, A.R.I.B.A., ARCHITECT.

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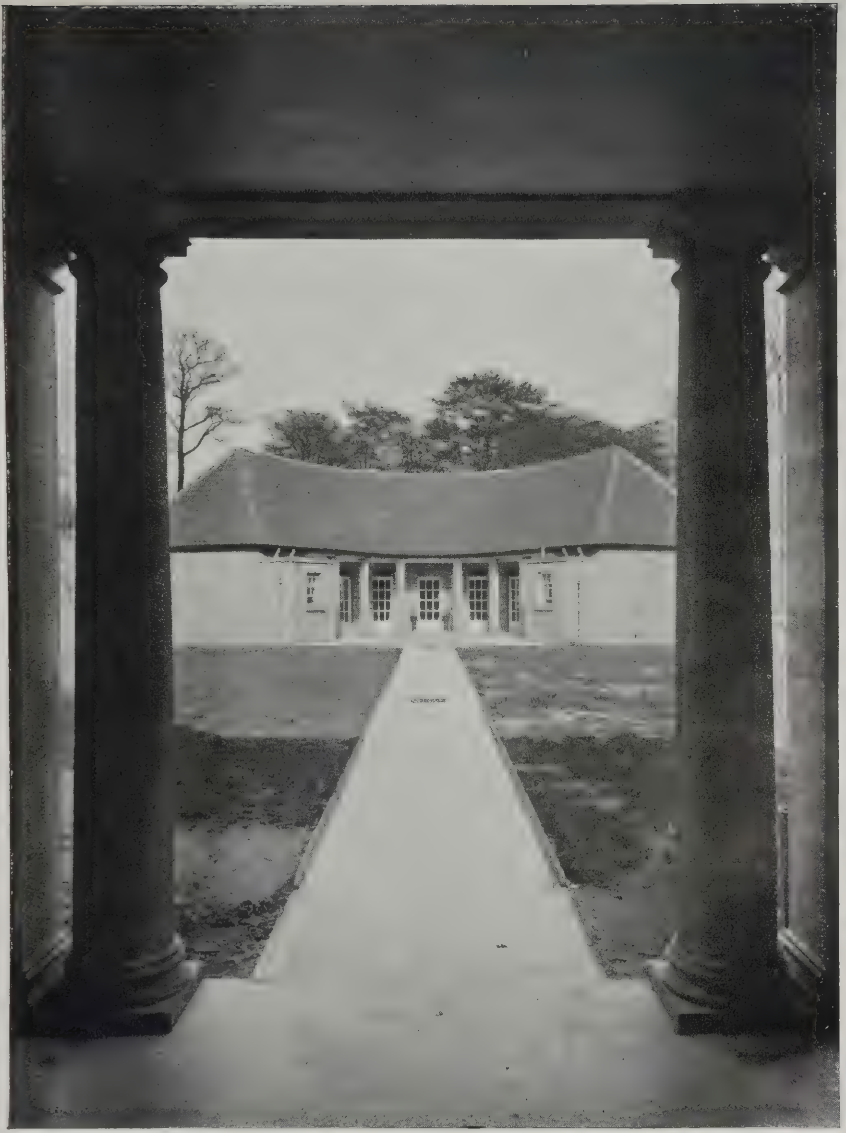
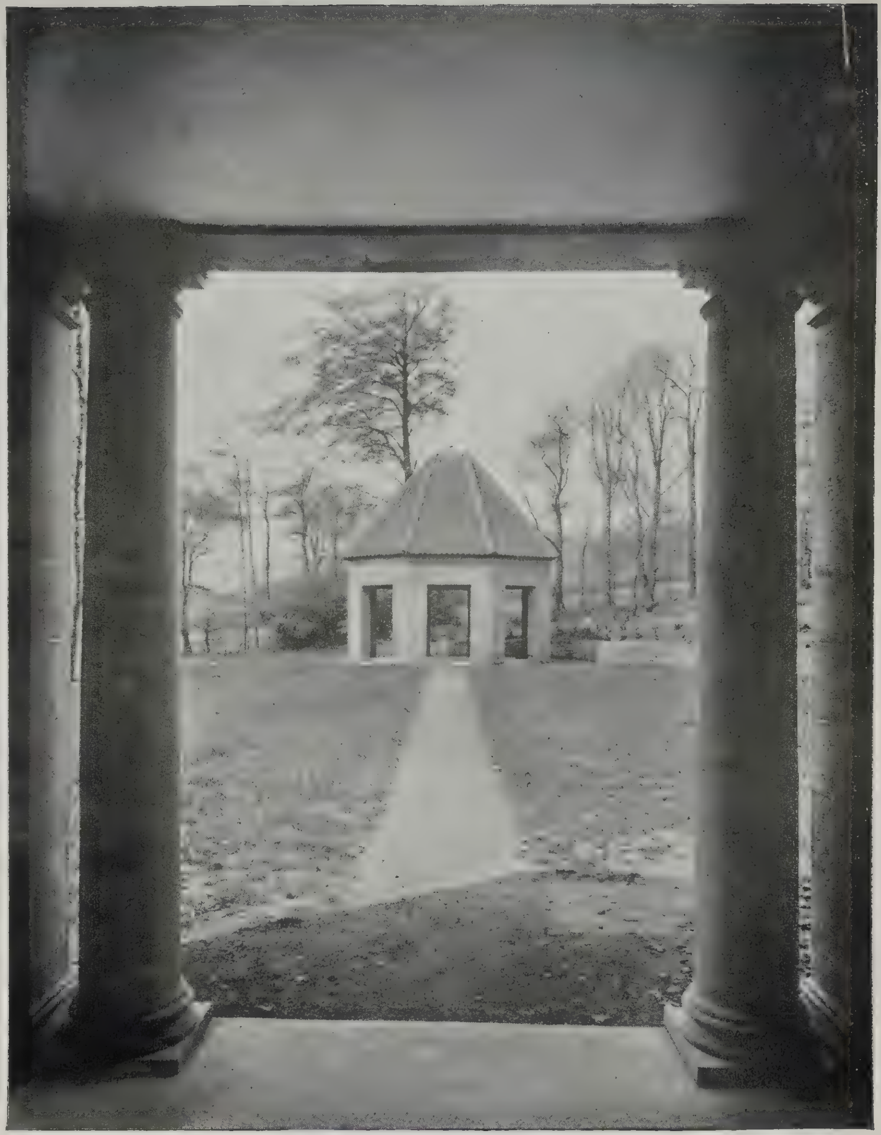


Observation Block.



Shelter in Grounds.

Photos: Thomas Lewis.

CURRENT ARCHITECTURE (SERIES V.). XXII.—KING EDWARD VII. HOSPITAL FOR CRIPPLED CHILDREN, RIVELIN VALLEY. SHEFFIELD.

A. W. KENYON, A.R.I.B.A., ARCHITECT.

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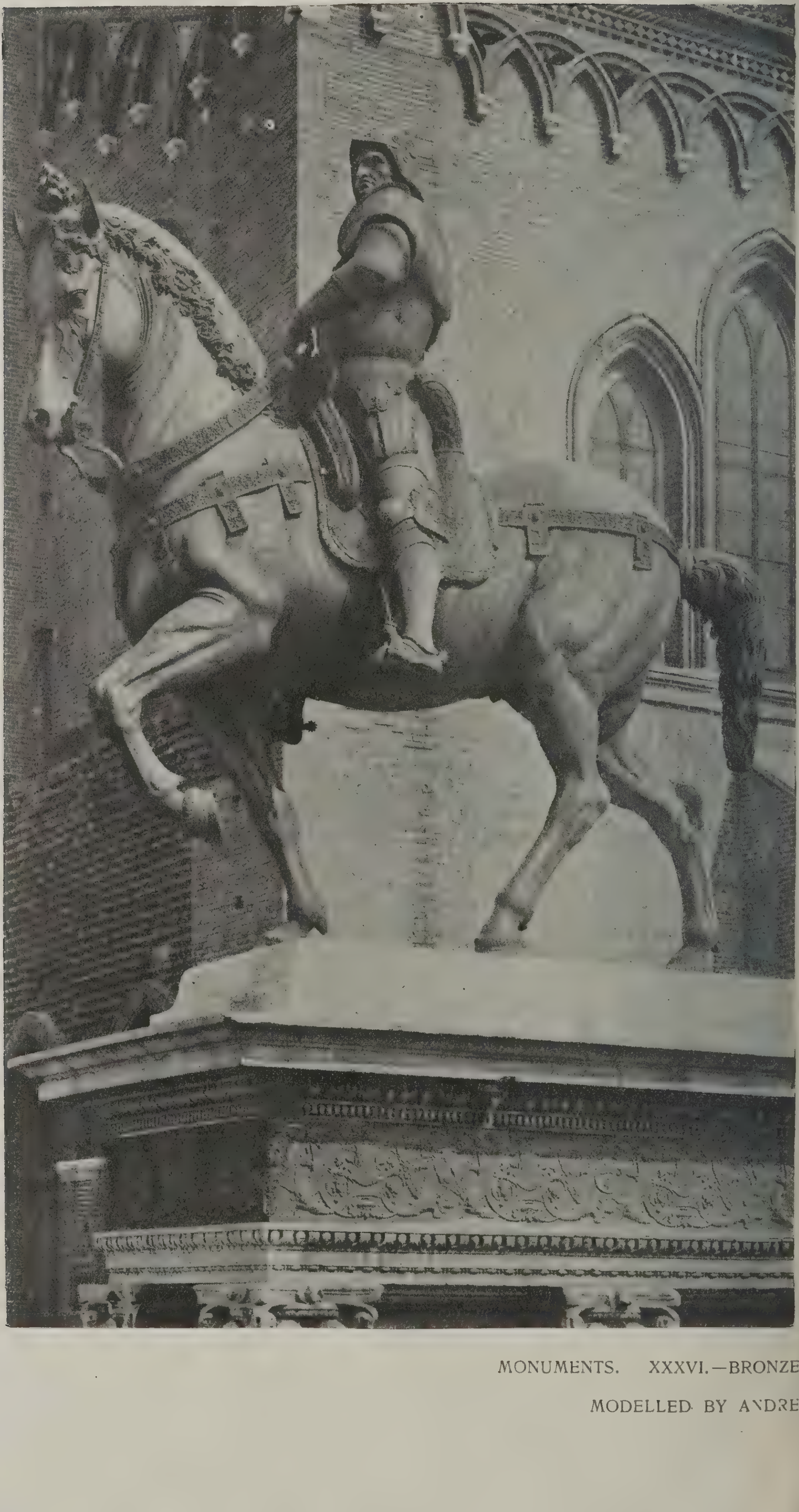
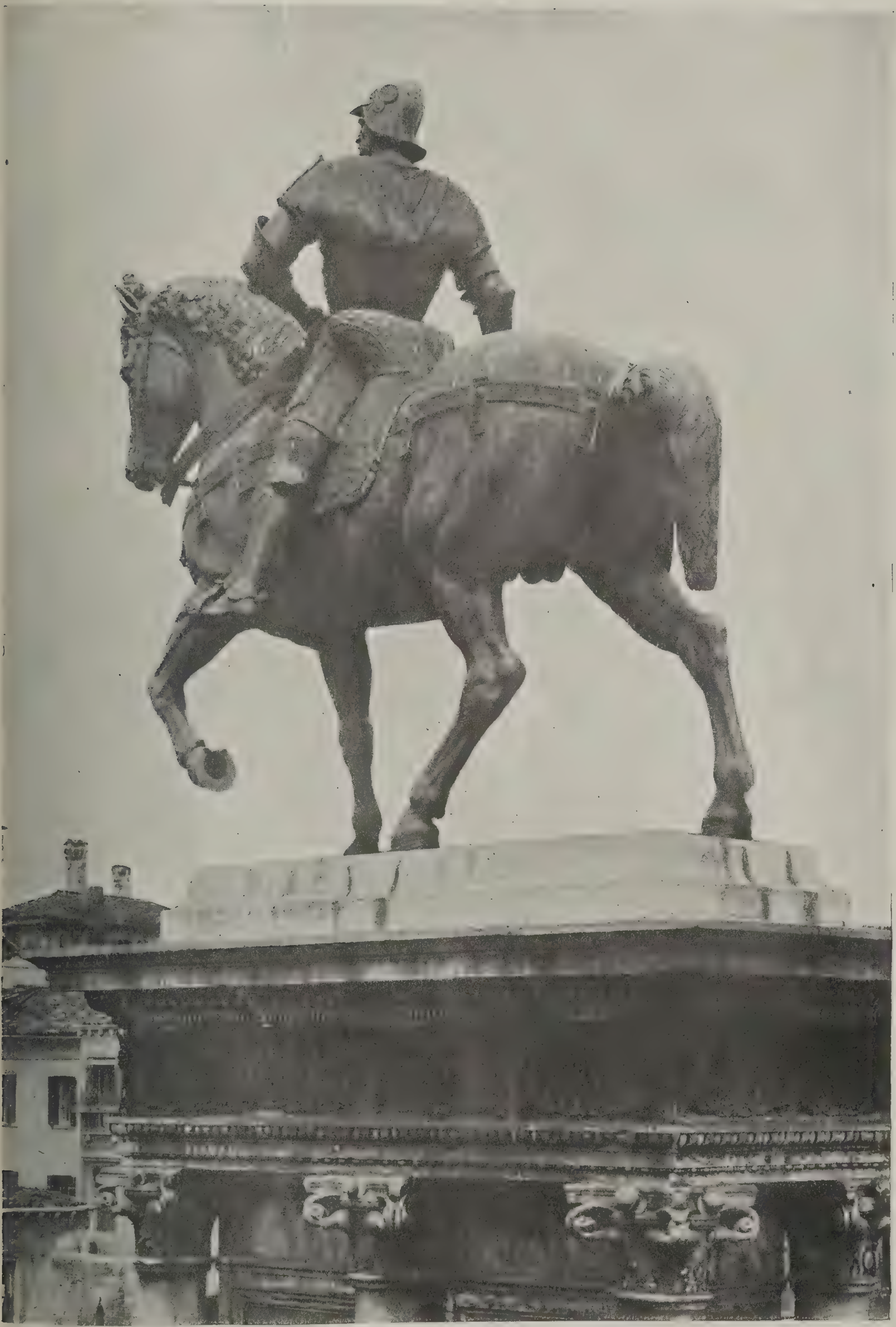


MONUMENTS. XXXVI.—BRONZE E

MODELLED BY ANDREA



N STATUE TO GENERAL COLLEONI, VENICE.

HIO. CAST BY ALESO LEOPARDI.

THE ARCHITECTS' AND BUILDERS' JOURNAL.

MAY 29, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1221.

NATIONAL PAPER ECONOMY.

)wing to the very necessary Government restric-
ns on paper supplies, all elements of waste must
rigorously excluded. Our readers, we are sure,
l gladly assist in promoting this object, which is
item in national economy. They can co-operate
h us effectually in either of two ways—(1) By
cing a direct subscription for this Journal, or (2)
placing with a newsagent an order for its regular
ivery.

t is announced that the Paper Controller is about
forbid the returns of unsold copies of newspapers
l periodicals to the publishers. Newsagents will
refore become keenly interested in the elimination
the casual customer—will be morally compelled
)btain only those papers that have been previously
lered. This fresh development strongly
phasises the foregoing advice to place a direct
scription or to give a newsagent a standing order
regular delivery.

/ITH the thirty-fourth annual report of the
Institute of Builders—which has been not
inaptly called "the House of Lords of
Building Industry," is included the presi-
ntial address delivered by Mr. Walter Lawrence.
at address is worth preserving. It is a docu-
nt of considerable weight and importance,
ling trenchantly and luminously with the many
icult and complex problems with which the industry
onfronted—with the question of technical training,
ich has assumed new phases in consequence not
y of the war but of the new views of education
bodied in Mr. H. A. L. Fisher's Bill; with the
ditions and methods of contracting; and with the
ations between employer and employed. As Mr.
wrence said in his introductory opening, the inter-
ition of the Government has affected every aspect
he industry. Builders have borne almost without a
rmur the crushing hardships that have been imposed
n them under the plea of national necessity, but, as
. Lawrence hinted, this bureaucracy will not be
rated when the war is over. On that point the
.B.A. and the building organisations are at one.
another—that of a new form of contract—they have
to come into agreement, as we devoutly trust they
l do right speedily; for sooner or later they will be
pelled by force of circumstances to do it, and it
ht as well be done first as last. At the same time
contract prepared by the Society of Architects
uld be incorporated. To have three documents
ead of one would be to weaken the authority of all,
l obviously would give rise to much confusion and
oute.

* * * *

merican architects want "larger recognition."
ey are agitating for it, their immediate ground
complaint being that when the United States
ne into the war insufficient use was made of
services of architects. "Engineers and contrac-
," says "The Architectural Forum," in which the
vance is under discussion by the leading architects,
ho furnished the 'know how' were given prece-
ce, while architects were dismissed as visionary
sts." Their case, then, runs parallel with ours,
l the origin of the trouble is common to both
instances. "This recent trend of affairs," as our contemporary says, "has served to awaken architects to a realisation that the nature of their profession is unknown or misunderstood by the majority of the public," and, let us add, consequently by their representatives at the seat of Government. But by whose default does this ignorance prevail? That is the crux of the problem, and is at the root of the question that our contemporary has asked architects to answer—"In what manner and by what means can the practice of architecture be developed in order to win a larger recognition?" Of half a dozen replies, that of Mr. Irving K. Pond is at once the most broadly philosophical and perhaps the least practical. He discusses the respective functions of the architect and his rivals the engineer and the decorator, and holds that "the real architect can and does put into his product a basic element necessary to the larger life, which neither of these others can in the very nature of things supply. . . . It is the prime duty of the architect so to plan and design that his structure shall function for use and beauty—not for modified use and superficial ornament, but for inherent practicability and beauty." Mr. Pond's thesis is irrefragable, but unfortunately he is preaching to the converted; his message would be more effective if it could touch the hearts of the heathen, but he is constrained to admit that ways and means of awakening the public to a true conception of architecture have yet to be considered; and he does not help us very materially in adding that "among these ways and means must be counted the influence of the architect's devotion to his ideals as exerted through its materialised expression." His advice amounts to little more than a doctrine of final perseverance. We are to stick steadfastly to our ideals until the public is educated up to them.

* * * *

In the interval, the engineer and the decorating firm will have captured the entire public, the architect's opportunities of making the people "feel an influence" that is "frequently enough exerted" dwindling steadily while his rivals get ahead of him with the inferior but more influential because more frequently repeated stuff. Patient plodding down the slope to Avernus will not serve our turn; nor can we afford to await the development of a slow process of "educating the public and the architect in the philosophy of correct living and thinking, of estimating the real values of life, which may be made a means of creating a mutual sympathy and understanding between public and architect, and of gaining for the architect that larger recognition which it is assumed by many, perhaps from the architect's own attitude, that he is earnestly seeking." If the salvation of architecture depended on this Fabian policy, it would be already a lost cause. Mr. Pond, in fact, takes us no farther forth. Mr. R. Clipston Sturgis may be less eloquent, but he is more practical. He says, in effect, that the architect is so little understood because so little is seen of him—because he works through others. Then the United States Government departments set a bad example to the public in believing that engineers could build anything, and in employing them on war work to the exclusion of architects are merely acting in accordance with their own bad tradition. It will be remembered that for many years our own Government made the same mistake in India, where they are now tardily making amends. Mr. Sturgis claims that, "when it is a question of building, it is the simpler, less complex problems which the engineer solves; it is the complex ones, often involving the engineers' problems as well, which the architect handles. This might seem to make a claim for the architect of omniscience. Quite the contrary, the architect would be the first to admit that of all the varied sciences which come under his control and direction, there is hardly one of which he is a master. His claim to being in fact what his title means, the master builder, is that he has knowledge of all the matters which enter into and make up the modern building, knows what the problems are and how they should be solved, and who is best fitted to solve them." It is difficult, however, to get the public to understand this, because they cannot see the architect's mind at work, and because they are unable to appreciate at their true value such manifestations of it as the architect can render visible. Why, in the United States, as in this country, engineers have been preferred to architects in war-time building is because the public think engineers practical men and architects visionary. As a corrective, Mr. Sturgis suggests a Press campaign, dealing largely with notable buildings, and showing what the architect has done in them. These, he thinks, could be made very interesting reading, and would give the reader a new idea of the architect as an executive manager. Mr. Magonigle, like Mr. Pond, advocates the abandonment of tame adherence to foreign styles: "We whisper or shout in the accents of England or of France, of Italy or of Greece, hoping to be understood. When we learn to speak in the new tongue that shall be American, showing its origins as a word contains its root, but this will take time." This seems to be travelling rather far afield; and, indeed the whole discussion is too diffuse to carry much conviction that the architect is in the habit of going straight to the heart of things. We prefer the more direct and less rhetorical methods by which Mr. Newton and Mr. Hare have partly converted the British Government to a belief in the versatility and adaptability of the architect.

* * * *

It will be noted that the demand for a distinctively American style of architecture is qualified by an admission that it must be given time to grow. That is surely the way of it. And it must be spontaneous rather than the result of a conscious and deliberate endeavour to break away from tradition. Yet it must spring from knowledge, as from a cultivated soil. One of our American friends talks with some scorn of "period" architecture and decoration. He refers, no doubt, to the abuse of these things by weak and subservient minds, which dare not deviate by a hair's breadth from an established convention in structure or ornamentation, and, with fatuous fidelity, will reproduce all the faults of the model; for not even the Parthenon is faultless, much less any scheme in any of the "periods." Scholarship, refined taste, and the immediate object to be served, will guide and govern the modifications. We have always felt that the Americans show in their adaptations more freedom and grace than the architects of any other country save France, but probably we have seen only the best examples; and we are rather at a loss to understand the yearning of our cousins for "a new language" when they speak the old languages with so charming an accent, and when their vernacular (which at the moment we are specially proud to recognise as an offshoot of our own) is so incomparably rich in racy idiom; and it is better to lisp in Latin than to yell in Esperanto.

* * * *

What is to happen to St. Olave's, Southwark, is still in doubt. It will be remembered that the Bill to authorise its destruction was referred to a Select Committee of the House of Lords. St. Olave's ha been visited by members of the Committee, who cam away convinced "that the church is useless, the church yard derelict and disreputable, and that, apart fron the Bill's positive advantages, the discontinuance o the present objectionable features is desirable." The were instructed to insert a clause providing fo the retention of the churchyard as an open space. Tha clause would have defeated the main object of th promoters of the Bill, who wished to sell the site an apply the proceeds to ecclesiastical needs elsewhere but instead of withdrawing the Bill, which has no passed its third reading in the Lords, they hav assented to a compromise by which the towe of the old church and a portion of its site an of the churchyard shall be vested in the Metropolita Public Gardens Association for an open space and public approach to it. Surely this is rather wea trimming—one of those detestable half-measures tha leave everybody dissatisfied. It will give the pro moters about one-third of the money they wanted will bestow upon the public a poky piece of ope space for which there is no demand save by open-spac cranks, and will leave the tower standing as mutilated monument to compromise. The paltry littl bit of open space to be retained is really not wort preserving. It will have the pathetic interest of a so of turf to a caged lark.

* * * *

Mentioning last week the Hall of Greek and Lati Inscriptions in the British Museum, we should hav added, if space had allowed, that the collectio includes at least one that is specially attractiv to architects. On a small slab bearing the name o Vitruvius Pollio, the name is followed by the letter A R C H, which have been taken to mean "Archi tectus," and hence to confirm the belief that Polli really was his surname—a doubtful point. But som scholars conjecture that the letters are an abbreviatio of Archigubernus, or commander of a ship. Polli was quite a common name; but the point is as obscur as the style of Vitruvius, whose unintelligible passage have so often to be expounded by a gloss or eked ou by conjecture. Whether or not he had any contem porary fame as an architect is still in doubt, for ther is no mention of any building of his except the basilic at Fanum. Almost all the information we have of hi is derived from his immortal treatise, and the ver period in which he lived is inferential from his refer ences to Julius Cæsar and Augustus. But Bramante Michelangelo, Palladio, Vignolia, and a host of lesse lights, were greatly indebted to the books written b the meek little man who wrote them when bowed wit age, broken down in health, and oppressed by poverty

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THE PLATES.

National Housing Competition Designs.

WE illustrate on the four single-page supplemen tary plates in this issue the first-premiate designs in all four classes of the South Wale Area of the National Housing Competitions; and o the double-page supplement we show the second-pre miated design, Class A, and the first-premiated desig Class B, in the Home Counties Area, which were n available for reproduction when the other designs i this group were illustrated in our issue for May We regret that we have no space for a detaile criticism of the designs now shown; but the attentio of readers may again be directed to the admirab survey of the whole competition by Mr. C. H. Quennell, F.R.I.B.A., in our issue for May 8.

HERE AND THERE.

IMMEDIATELY after reading in this Journal an editorial note on a proposed revision of street-names in Glasgow, I happened to pick up the current issue of "Chambers's Journal," in which the first thing that arrested my attention was an article on "Scottish Street Names." Evidently the subject is "in the air," for it may be assumed that the Glasgow transaction, the "Chambers" article, and the spirit that moved the writer of the paragraph in our editorial columns were almost simultaneous manifestations of a rare impulse. Too rare, for this is a matter that is sadly in need of more attention than it has hitherto received. Is it not an important minor detail of town-planning? Consistent it is that streets laid out at random should be confusingly labelled; but a well-planned town will have its streets designated in accordance with a general regard for convenience and common sense. Graceful lettering will follow as a matter of course, superseding that which at present is disgraceful.

* * * *

Since the London County Council began to exercise a little contril in the matter, London street-nomenclature has slowly changed for the better. A good example has been set by the Council itself wherever it has been the actual sponsor. It has given us Aldwych and Kingsway, and has commemorated many notable Thespian names in the region of Drury Lane and Covent Garden. Street-names should certainly be significant: if not commemorative, then either directional or descriptive. Arbitrary names should be discouraged; misleading names forbidden. Sussex Road should lead to the delectable county of Sussex, as the Old Kent Road leads into the county of Kent, and as Oxford Street is the "long, long trail" to the university city. Sussex Road, Brixton, which leads nowhither, is an example of misleading. That the name may happen to be commemorative should not save it. There should be no paltering with us in a double sense. Broadway should not be an ironical commentary on the narrowest thoroughfare in London.

* * * *

Good examples of descriptive naming are in the Temple—Pump Court, Elm-tree Court, Brick Court, Paper Buildings, and so forth. Functional names, like most of those in the City, are apt to lose their force with the changes brought by time. Then, however, some of them become commemorative, though some lose also that virtue, except for antiquarians. Of such are Ave Maria Lane, Paternoster Row, Amen Corner, which have to be explained to the young, together with the streets called Milk, Silk, Wood, Friday. Seacole Lane would demand a short disquisition; but Fish Street Hill speaks for itself: which is lucky; for if, absorbed in your explanation, you happened to collide with a gentleman bearing on his head a triple crown of baskets loaded with shell-fish, his sympathy with your embarrassment would be painful. As the myriad winkles went rolling down the gutter, a tender light would spring to his eyes, and he would say, "My fault entirely. Do not distress yourself, I beg." It is a tradition of Billingsgate.

* * * *

No doubt the gate in this name was a gate in the modern sense—a means of ingress and egress through the city wall. Not so the gate so frequently recurring in the way-names of Scottish towns. It is explained, in the aforementioned article in "Chambers," as a Lowland Scots word meaning "way" (Old Norse, "gata"). Scott, Stevenson, and the Kailyard novelists have familiarised this meaning to us in such expressions as "He must e'en gang his ain gate," some of them spoiling it by spelling it "gait." Castle Gate is the Castle Road; Gallow Gate, the road to the gallows; Tron Gate, the road to the Tron, or public weigh-house. Gates as the word is understood in the South were in the North called ports (Lat. *porta*, Fr. *porte*). Hence the West Port, Bow Port. Mr. G. M. Fraser, of the Aberdeen Public Library, who is the author of this article in "Chambers," deprecates the tautology of such names as Sandgate Street, which is to say Sand Street Street. I suppose that Sandgate, Margate, Ramsgate, preserve the old Norse word. They obviously designate cliff-gaps that are ways to sand or sea.

* * * *

Here beginneth the customary air-raid. Amidst the racket of it I forsake the upper stories of philology, and go down into the basement (or debasement) of it. Permit me, in the circumstances, to refer, in a spirit of airy persiflage, to a few of the significant surnames in the R.I.B.A. Kalendar. Selected impartially from the lists of Fellows, Associates, and Licentiates, they nevertheless fall far short of a complete team of builders, nor do they yield a full supply of materials. Still, they give us something to go on with, so we will make a start on the job. Failing a Carpenter, Boardman, Naylor, and Tufnail shall serve our turn. I did not expect to find a Bricklayer. Brickman, Brickett, and Brickwell are the nearest approaches to it in the London Directory, in which also there are Brick and Plaster. The conjunction is mine, more's the pity; for would they not make an ideal firm of builders? Perhaps the function of the Plasterer is expressed by an honoured name in the Kalendar—Dawber to wit. Although we have no Plaster, we have Hair, Hare, Heir, however you care to spell it—have, indeed, a Wigfull. There is also a Haarer. Nor have we a Joyner among the architects, although the name is common enough to make its omission a regrettable accident. We are fairly strong in excavation and cartage, with Barrow, Wheeler, Carter, Horseman, Horser, Pullar, Loades, Mules. Minus a Shovell, we must do the best we can with our Hands and a Pick to shift Heaps of Mould, Clay, Gravell, Sands, and other forms of Ground. For scaffolding we have a Pole, a Ledger, a Hook, a Roper, a Hitch, a Tapper; for hoisting, a Crane and a Winch. There is but one Round to our ladder. Waters shall mix the Morter and the Grout for our Walls, which are numerous, with enough Wallers for their edification. Stone and several Lewises are at the Sarvis of the Masons. Wood there is in plenty for the Sawyer—yea, Forests of it, but only Ash, Elms, and Oakes are specified; an Adshead Mayhew them. It is a bit of Luck that there is a Tree for Birds to Purchon; perhaps a Rowan or a Rowntree. Steel is in excellent supply. Our one and only Painter may lay on several Coates, but, to avoid demarcation disputes, should leave Stains to our Stainer. Window is a good surname, but the nearest approach to it in the Kalendar is Winder, who, with Rising, clearly cannot be spared from the staircasing department, to assist with the ramp-on-Twist. Glazier will take care of the Paynes, and will not injure the Sills. Our Style will be Trew to Type. Our Churches, alas! will have no Spiers, but shall not lack for Vanes or a Cross. Locke has forsaken us, but we have a Key with several Wards. Slater and Plummer, and Smiths galore—— But why go on? "All clear" has been sounded by the Hornblower.

DIOGENES.

MR. WALTER LAWRENCE ON THE POSITION OF THE BUILDING TRADE.*

MR. GODSON AND GENTLEMEN,—I have to thank you for conferring upon me the honour of the presidency of this Institute for the ensuing year; an honour which I appreciate, and trust you will accord to me that unstinted support which my predecessors in office have enjoyed.

We have arrived, gentlemen, at a very critical period in the life of our industry, the foundations of which have been shaken by the great conflict which is being fought out upon the battlefields of Europe, and the position seems to be that we are upon the threshold of a new era, the immediate result being a general upheaval of business. The Government has stepped in, with the result that every aspect of the building industry is affected. The Government, moreover, is considering what are called problems of reconstruction; it aims at settling a housing policy, and that is so important a matter in itself and so closely related to other reconstruction needs, that it seems likely to involve Government control of building operations and of the materials required therein, for a considerable period after the war. This, I hope, will be resisted to the utmost by the building trade in general throughout the country, as, although it has accepted without demur all the restrictions which have been imposed upon it hitherto, that position has been accepted only with a view of causing as little anxiety as possible to the Government during the conflict. No one therefore can question for a moment the patriotism of the organised building industry, or the loyal support it has accorded to those who have the onerous duties of conducting this world-war. But, gentlemen, after the war, the policy to be adopted, in my opinion, must be "hands off" the building trade; that, as pledges were given to the trade unions to restore their pre-war privileges, so also must the position prior to the war be restored to our trade, and an end be made to interference from Government Departments.

The Government also asks for Joint Industrial Councils to be set up, to formulate and voice the opinion of each great industry upon the questions which affect it. Such a Council is in process of formation for our industry, and this Institute is a participant therein; but, I ask, how is this possible unless the industry is again allowed to take control of its own affairs?

When we consider more closely how our industry has been affected, we find that serious hardship has arisen out of the conditions of contract under which we have so long worked; we see that labour has acquired a position of prominence due to its great scarcity, combined with the demand for buildings for Government use. The letting of work by contract at a fixed price has almost ceased, but the distribution of work is very unequal, resulting in some firms having more than they can properly supervise, and many other firms being left without anything to do.

The training of young people for our industry has received a severe set-back, although it was admittedly inadequate previously. The effects of this will make themselves felt later on, as also will the effects of the new Education Act, which requires young persons to continue part-time education to a later age than formerly.

The Institute represents the professional or craft side of our industry; it stands for a high conception of what is due to builders as craftsmen, and what is due by builders to those who come to them for craftsmanship; it stands for honourable dealing as between members of the same craft, *a principle upon which it is impossible to lay too much emphasis.*

The policy of the Institute at this juncture ought, in my opinion, to be directed to:

(1) A thorough revision of the conditions under which works are to be carried out by those engaged in the industry, so as to bring them into harmony with the circumstances of our time. In this connection your Council will have before it very soon a draft form of contract, and I ask for it your careful consideration, and I would here venture to express the hope that the R.I.B.A. will, appreciating the altered circumstances, agree upon such a revised form as may prove acceptable to the industry.

(2) A constant supervision of the conditions under which apprentices are engaged and trained. Every effort should be made to encourage the making of apprentices and their training into efficient workmen. There never has been a time when this duty was more incumbent upon employers who care for the future of their craft. The new Education Act should be studied, and means devised in order to adapt our business methods of training and using apprentices, so that the latter may derive the fullest benefit.

(3) An active participation in the work of the Joint Industrial Council. The Council will not have executive functions, it will be purely a deliberative body. The force of the recommendations it will make upon any question submitted to its consideration will lie in the unanimity of the building industry, both workmen and employers, which lies behind those recommendations. A thorough threshing out of all aspects of the question, a sympathetic co-operation in the solution of its difficulties, and a careful enumeration of its conclusions, must be aimed at. The time has come when both employers and employed must so unify their interests, that they can co-operate for the largest number of common objects towards the advancement of our craft.

(4) A careful study of the methods of contracting in our industry, with the object of effecting a much-needed improvement. The position in which we find ourselves owing to the present and prospective demand for our work, the high cost of production, and the scarcity of labour, renders the moment opportune for dealing with this important question. Under the method of contracting by a fixed price, the contractor took all the risks and all the profits; but as the risks have a habit of asserting themselves to the detriment of the profits, our industry has hitherto been conspicuous for the number of its bankruptcies; a state of things which ought to be remedied in the interest of all concerned. Such methods leave out of consideration the labour factor, which has its own rather strong views about the matter, and the time has come when those views will require consideration, if the urgent question of securing a better output is to be solved satisfactorily. What appears to be needed is some method which shall secure at least a certain living remuneration both for the contractor and his workmen out of every contract, thus encouraging a full adequate output from labour, at the same time providing buildings, well and truly built, at a cost which will induce capital to flow freely into real estate. I am looking to a solution or part solution of the labour difficulties in the near future by either a profit-sharing or premium-bonus system, as it is only by the maximum output of every man that we can hope to maintain our position in the world. To obtain that maximum output, labour must be taken into our confidence, the feeling of suspicion between the operatives and employers, which I am afraid exists,

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* Presidential Address delivered at the Annual General Meeting of the Institute of Builders

ust be removed by some means, and a better rela-
nship prevail in the future than in the past.

(5) A steady development of the policy already
lopted by the Institute and set out in the pamphlet
titled "Aims and Objects."

A very satisfactory beginning has been made;
ere has been a gratifying response from the pro-
ncial building trade, as evidenced by the notable
cession of membership which has taken place under
y immediate predecessor in the chair (Mr. Godson),
t the work must be pressed forward, and the
ganisation of the Institute extended as rapidly as
ssible. There will be interesting and valuable work
r the provincial branches to do under the heads I
ve just set out, and they must be prepared to do it.
the future the status which a builder occupies in the
es of his fellow-craftsmen and of the public, as
idenced by membership of this Institute, is going to
vastly more important than hitherto. The building
ade is going to be revolutionised in many of its
ethods, and real craftsmanship will be an important
ctor in effecting the changes involved.

The examination scheme of the Institute will afford
those who wish to enter the industry an opportunity
testing the reality of their capabilities and accom-
ishments in this, one of the most many-sided and
fficult industries to which a man can devote himself.
ust consider how many other industries a builder
uches in the pursuit of his craft: he must have an
telligent interest in and understanding of archi-
cture, draughtsmanship, civil engineering, sanitation,
rveying, accountancy, costing, and finance; and be,
esides, well acquainted with the details of some
venty other branch trades which are represented in a
odern building.

How is it possible for a man to do justice to a
aft like ours unless he undergoes a wide and severe
urse of technical training and study?

It is the object of the Institute to do its utmost
this direction, and no more worthy object could
pursued; moreover, I feel confident that, with the
earty co-operation of the many able men who have
ken up this question, and a recognition by the
eat body of our craft of the true necessities of the
tuation, the remedy will be found, and the future
atus of our ancient craft and of those who follow
put upon the footing which it, and they, ought
occupy among the sister arts.

It is a matter for regret that the R.I.B.A. have not
en fit to agree with us a form of contract for
ub-contractors nominated by the architect; had
ey done so, I am convinced that it would have
sulted in the removal of much friction that arises
om this particular cause. We, however, have had
go forward by ourselves, and hope in the near
uture to agree a form with the sub-contractors.

I sincerely hope that the Joint Committee on
imber now sitting at the Imperial Institute, com-
ising architects, builders, and timber merchants,
nd on which Mr. J. S. Holliday and I have the
onour to represent this Institute, may result in a
uch better understanding of the subject, and an
ppreciation of the need for a broadening of the
ecifications of architects as compared with those
at we have been accustomed to receive from them
r many years past.

I regret that the Government have not long ere this
lopted the suggestion made by the building trade, of
tablishing a Wages Board, composed of employers
nd operatives, to determine the various rates of pay
r men engaged on Government work throughout the
untry, which would, I am convinced, have saved
uch of the appalling waste of money that has taken
ace owing to the competition between the various
overnment Departments for the supply of labour,
nd the orders enforced by them upon certain firms to
y anything in order to draw labour from somebody
else; many of which firms, unfortunately, without demur comply with those orders to the detriment of the other members of our craft; a suicidal policy you must admit, inasmuch as there is only so much labour in the market, and the indiscriminate increase of wages and bonuses does not increase that amount of labour, but causes serious unrest among the operatives, and consequent limitation of output, rather than that increase which is so important to the country at the moment.

In conclusion, gentlemen, I can only say that I sincerely hope that, long before my successor is appointed, we shall have seen the end of the struggle between the principles of liberty and the principles of tyranny; that the former may be overwhelmingly successful, and that we may again return to our peaceful avocations, and continue to pursue them without interruption for many years to come, to the mutual benefit of ourselves and mankind in general.

THE NEW ARCHITECT A.R.A.

WITH the election of Mr. G. Gilbert Scott, F.R.I.B.A., to the Associateship of the Royal Academy, architecture is now represented on that important body by seven members; the others, of course, being—Mr. Reginald Blomfield, Sir T. G. Jackson, and Sir Aston Webb (Academicians), and Sir Ernest George, Sir E. L. Lutyens, and Mr. Ernest Newton (Associates). As the architect of Liverpool Cathedral, the largest and most important ecclesiastical building of modern times, he had very special claims to the distinction. Mr. Scott, who is now in the Royal Marine Engineers, is thirty-eight years of age. He was educated at Beaumont College, Windsor, and served his articles with Mr. Temple Moore, F.R.I.B.A. He began practice in London in 1902, and sprang into fame in 1904 (when but twenty-four years of age) by winning the Liverpool Cathedral competition.

MR. G. GILBERT SCOTT, A.R.A.

POINTS FROM PROFESSIONAL PERIODICALS.

Alliance in war has naturally intensified other mutual interests. We therefore propose to indicate, by occasional references to leading professional publications, what our Allies are thinking and doing in the domain of architecture. The first three of the following notices refer to "The Architectural Record," and the remainder to "The Architectural Forum."

An Elizabethan Adaptation.

In the April issue of "The Architectural Record" Mr. John Taylor Boyd, jun., describes and illustrates the fine residence of Mr. George Arents, jun., at Rye, New York (Lewis Colt Albro, architect)—"an effective free rendering of an English type of house, Elizabethan in its antecedents"—"an irregular mass, with a fine high slate roof and brick chimneys; its walls are a colourful rough-texture brick, broken by limestone and some half-timber elements well diversified in the picturesque salients and gables and entrances." In the interior, one of the means employed to attain harmony is the free use of dark wood panelling throughout the ground-floor of the house; the effect being of the dark rich atmosphere that one associates with the historic Elizabethan style. In the dining-room, decoration of a more modern period has been employed. The change occurs without abruptness, for the dark walnut panelling harmonises with the design of the hall and living-room, and the fine plaster ceiling has been executed in that modern revival of old English plasterwork recently introduced into America with successful results. The plasterwork is yellowish in colour, like old ivory.

The Stillman Theatre.

Mr. W. Sidney Wagner holds that the recently completed Stillman Theatre in Cleveland, Ohio (Geo. B. Post and Sons, architects), is a revolt against the placid acceptance of the theory that the public's taste is hopelessly bad, and that when it goes pleasure-seeking it demands blatant and flashy surroundings. The architects were required to build a motion-picture theatre so planned that it could be readily converted into a dramatic theatre, with a seating capacity of about 2,000. A noteworthy point in the structural design is that the balcony, which is of the modern cantilever type, has its girders resting on a large transverse truss spanning nearly the entire seating width of the auditorium. It does not, however, extend to and rest upon the masonry side walls of the auditorium, but is supported at each end upon a column adjoining each side aisle and placed about 5 ft. away from the inside face of the wall. This arrangement permits of the introduction of a slightly inclined passageway from the mezzanine promenade level to the lowest transverse aisle of the balcony, and on each side of the balcony between the end of the truss and the face of the side wall. Besides thus providing two additional fire exits of the best type, these passageways are of distinct advantage from an operating standpoint. They eliminate the usual tiring climb to the balcony levels; they bring the entrance to the balcony down to the same level as the mezzanine promenade and within sight of the main entrances to the auditorium, all of which makes the balcony seats at least as desirable as those on the main floor. A mezzanine promenade, in the triangular space formed by the lines of the balcony steppings and the ceiling underneath, is regarded as a novel feature in America. Required to guarantee acoustic efficiency, the architects specified a patented sound-absorbing material in the wall and ceiling panels, but this was not used, the acoustics being satisfactory without it. Researches in acoustics by Professor Wallace C. Sabine, Hugh Tallant, and others, were carefully studied by the architects, who determined to depart from the conventional form of theatre ceilings and strive for a form which, in conjunction with the flanking proscenium walls, would more nearly approximate the form known as the paraboloid of revolution.

Early Greek Colour Decoration.

In an article on "The Greek System of Architectural Polychrome Decoration," Mr. Leon V. Solon recalls that in 1876 the great temples of Zeus at Olympia, together with their treasuries, were discovered, furnishing definite clues from which the Greek system of architectural polychrome was gradually reconstructed and the correct location of certain doubtful items definitely settled. Mr. Solon enumerates three processes of colour application—(1) By the fresco method of painting on wet stucco; (2) by the encaustic process, which was employed for painting on marble, the pigment being mixed with melted wax, which, when liquid, was used for painting, hot irons afterwards applied to the painted surface causing the coloured wax to penetrate the marble; (3) by the execution of certain structural items in polychrome faience—e.g., the highly decorated cornice and corona mouldings, antefixa, gargoyles, and ornamental roof tiles. Mr. Solon goes into details very thoroughly, and has drawn many illustrations of the points he makes. His general conclusion is that colour, to the early Greek, possessed only a portion of the significance enveloping it to-day. It was the means by which sensuousness was added to dignity, an illumination in the Gothic sense, with no further significance than enrichment. Colour harmony in the modern sense does not figure in Greek art, and will be sought there in vain. Their skill lay in an infallible adjustment of colour, in such mutual relation and proportion that a homogeneous effect was produced with discordant elements.

Other notable contributions to an excellent issue of the "Record" are Part V. of Mr. Albert E. Bullock's series on "English Architectural Decoration"; Part II. of Mr. Lawrence Veiller's explication of the American Government's standards for war housing; and "Suburban Landscape Planning in Cleveland," by I. T. Frary.

Architects and the War.

In "The Architectural Forum" for March, the leading position is given to expressions of opinion by architects on the Government neglect of the profession with respect to war-time building. Replies to a circular letter from the editors are published from Mr. Irving K. Pond, H. Van Buren Magonigle, Albert Kelsey, Walter H. Kilham, Thomas C. Young, and W. K. Fellows. One or two points from these replies are dealt with in our editorial columns.

A New York Architectural Exhibition.

The recent exhibition of the Architectural League, in New York, was the thirty-third annual show of the series. Mr. H. Van Buren Magonigle, in opening the exhibition, said that it was unique in the annals of the League—"an exhibition which we hope may mark the beginning of a new epoch, the dawn of a new Renaissance, wherein the sister arts a
crafts that minister to the art of archit
ture shall assume again their anci
dignity. Busied as the architects ha
been during a generation in recording
technique of their own art, they had
little time to encourage the craftsma
his work has been on the whole sa
neglected in this country. The Archit
tural League, composed as it is of arc
tects, mural painters, sculptors, la
scapists and designers, and workers
glass and mosaic, tile and ceramics, textil
furniture, is, in our view, the proper bo
to repair that neglect; as a beginni
therefore, the works of the craftsmen
shown here in the galleries hitherto h
sacred to the architect, the painter,
sculptor, and in the worthy setting
signed by Mr. Howard Greenley." Th
"setting" is described as "an interior
striking scenic effect." The domina
colour note of the South Gallery was bl
of a greenish cast, relieved by touches
yellow and gold in the column capitals a
the ceiling fabric. Mural paintings
strong colour occupied important positic
in the frieze, and groups of decoratic
lined the walls behind the columns. T
alcoves at each end and the whole of
Middle Gallery were given over to exhib
of furniture, textile fabrics, mantels, orn
mental metal work, and other decorati
craft work of a high order of artis
merit. The Middle Gallery repeated
colour tones of the South Gallery,
with the dominating tone yellow and
relieving colour blue. The fabric-hu
walls, the draped ceiling through whi
strong yellow light filtered, and the bol
stencilled frieze, combined to make an i
pressive approach to the Vanderbilt G
lery, in which the architectural work w
hung. This room, under the decorati
treatment given it, became an imposi
exhibit hall especially well suited to
purpose. The massive columns were s
mounted by crouching figures supporti
the draped ceiling, and the tempora
walls so arranged as to form a cent
court with a surrounding exhibit galle
Because of the desirability of viewi
architectural work at close range, this
circling gallery, which was of a neut
tone and softly lighted, provided excell
space for the architectural photograp
and rendered drawings. This exam
should not be lost on the R.I.B.A.

Prison Plumbing.

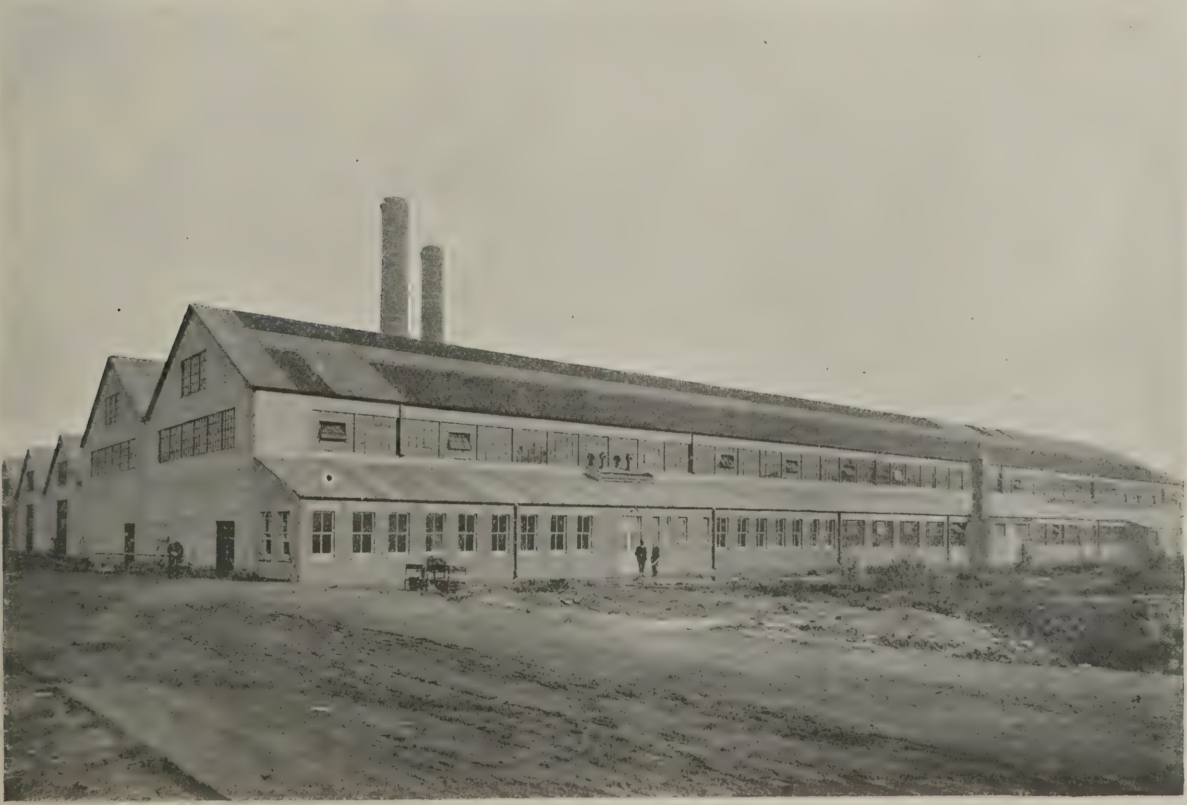
In the third of a series of articles
"Prisons and Prison Building," by Alfr
Hopkins, it is mentioned that in N
York State the regulations of the Sta
Commission of Prisons are very precise
the point that each cell must have a toi
and a wash basin. At Westchest
vertical shafts were constructed betwe
each pair of cells to contain all the plum
ing pipes for those fixtures. The basi
are designed so that the prisoner m
drink from the flow of water, which
from the outside of the bowl rather th
the wall side, thereby doing away wi
the necessity of a cup. The closet is su
pended, fastened to the wall and not
floor, and equipped with a vent connect
to galvanised pipes and ducts which a
controlled by an exhaust fan, there bei
one fan for each cell block. This is
simple and an effective way of providi
against the prisoner's habit of closing
window in the winter. The author hol
that it is entirely unnecessary to place
toilet and basin in each cell. This mak
the plumbing very expensive, and it wou
answer all purposes to design the c
block so that the toilets and lavatories a
placed at one end of the building.

WAR·BVILDINGS·SECTION

MODERN RAILWAY CAR SHEDS.

N interesting example of up-to-date construction as applied to railway k is to be seen in the new car sheds repair shops which have been recently ted by a railway company in a certain don suburb in connection with the trification of that company's suburban em. A large amount of floor space is uired for carriage repair work, and the ding described in this article is one of considerable size. The main dimensions are: Length, 340 ft.; width, 250 ft.; the latter dimension being made up in five spans of approximately 50 ft. each. The average height from the floor level to the eaves is about 20 ft. The whole of the construction work was carried out departmentally.

The main framework of the building is of structural steel, the walls, roof, and internal partitions being in Hy-rib. In the case of the walls, these were plastered with 1 : 4 cement and sand plaster to a total thickness of 2½ in., the final coat of plaster having Trus-Con Waterproofing Paste incorporated with it (used in the mixing water). The roof was concreted on the upper side of the reinforcement to a thickness of 1⅜ in. with 1 : 0 concrete, additionally covered all over with Ruberoid roof-



RAILWAY CAR SHEDS AND REPAIR SHOPS: GENERAL VIEW covering and cement rendered on the underside ½ in. thick.

Expansion rods were used throughout the construction, both in roof and walls, to take up stresses due to temperature.

The lighting of the building is carried out by means of continuous stretches of glazing along the roofs.

The three views reproduced in this article give a good idea of the work, the general view showing the size and finished appearance of the new sheds from the road end. The rolling stock enters the sheds from the end opposite to that shown.

The illustration on page 251 shows an interior view of one of the five bays of the building on completion, some of the rolling stock being seen on the right-hand side. This view conveys a good impression of the length of the building.

The illustration of the roof in detail given below clearly shows the ease with which a Hy-rib roof is formed, the material being securely fixed to the structural steel, and the purlins being so spaced that intermediate supports are dispensed with. The concreting of the roof was carried on as a practically continuous operation, screeds being fixed and the roof levelled off to the required thickness in the usual manner for concrete floor construction. Further, this reinforcement is slit in such a way that the concrete grips on to it readily, and, consequently, there is no waste caused by material dropping through.

OBITUARY.

Mr. Percival Currey, F.R.I.B.A.

The death is announced of Mr. Percival Currey, the hon. secretary of the Surveyors' Institution. He was a distinguished London architect, and had been connected with the Surveyors' Institution since 1889.

INAUGURAL MEETING OF JOINT INDUSTRIAL COUNCIL.

Following is the agenda of the Joint Industrial Council for the Building Industry, whose inaugural meeting will be held at the Central Hall, Tothill Street, Westminster, S.W.1, on Wednesday, May 29, at 11 a.m., and Thursday, May 30, at 10.30 a.m. The chair will be taken by Sir David J. Shackleton, K.C.B. The opening addresses will be given by the President of the Local Government Board (the Right Hon. W. Hayes Fisher, M.P.), the Minister of Reconstruction (the Right Hon. Dr. Addison, M.P.), and the Minister of Labour (the Right Hon. G. H. Roberts, M.P.).

Wednesday Morning, 11 a.m.

1. Speeches by the three Ministers.
2. Appointment of a Selection Committee to prepare a list of names to be submitted for election at the afternoon session for the post of chairman, vice-chairman, treasurer, and secretaries.

Wednesday Afternoon, 3.30 p.m.

1. The report of the Selection Committee.
2. The election of officers.
3. Consideration of a memorandum on Labour Resettlement After the War in Relation to the Building Trades Joint Industrial Council.
4. Appointment of a Selection Committee to prepare a list of names to be submitted for the election of a Resettlement Committee.

Thursday Morning, 10.30 a.m.

1. Report of the Selection Committee.
2. Election of members of the Resettlement Committee.
3. Consideration of memoranda on Reconstruction Problems in Relation to the Building Trades Joint Industri Council.
4. Appointment of a Selection Con mittee to prepare a list of names to be sul mitted for the election of a Reconstructic Committee or Committees, also of a Prov sional Committee to draft a constitution.

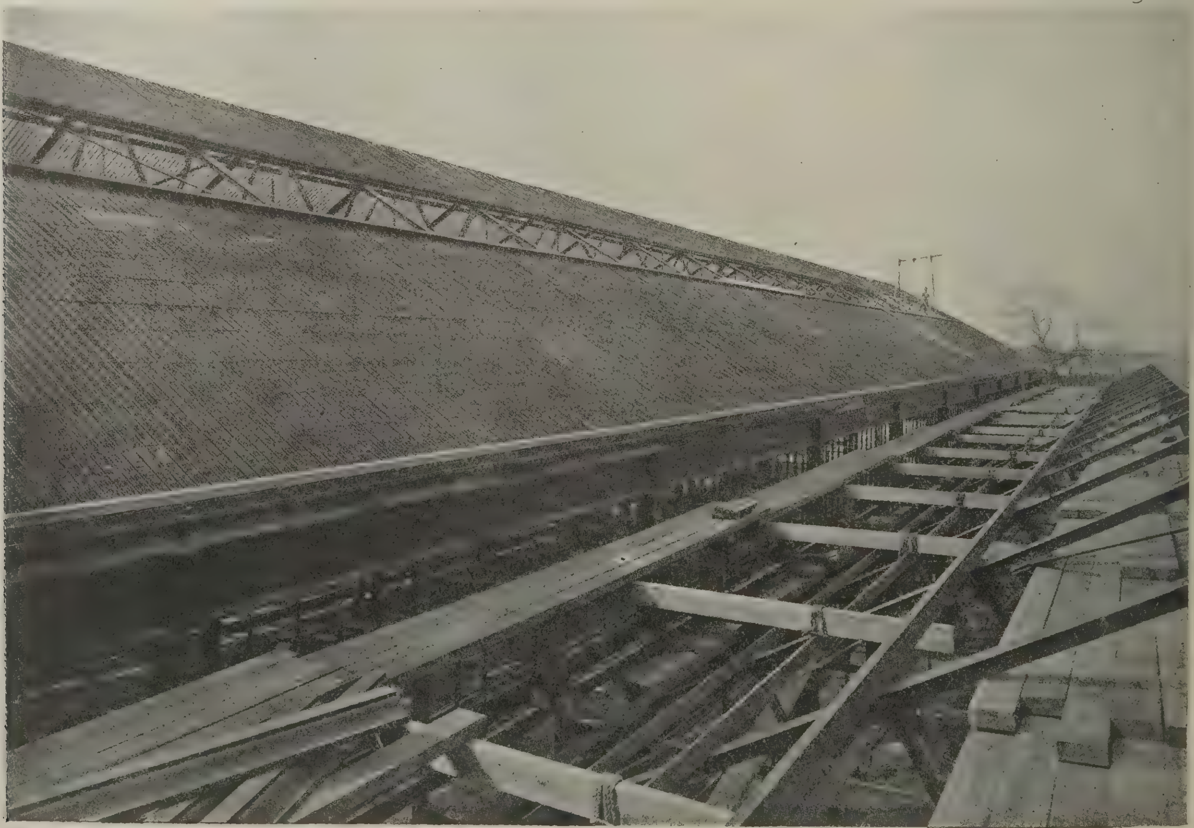
Thursday Afternoon, 3 p.m.

1. Report of the Selection Committee.
2. Election of members of the Recon struction Committee or Committees.
3. Consideration of a Memorandum constitution of the Joint Industrial Counc for the building industry.
4. Appointment of a Provisional Con mittee to draft a constitution with interi executive powers *re* finance and oth matters.
5. Appoint a committee to receive su gestions of subjects for discussion at ne meeting, prepare an agenda, and mak arrangements for the next meeting.
6. Date and place of the next meeting the Council.
7. Any other business which may presented by the Chairman.

A. G. WHITE,
W. BRADSHAW,
Secretaries pro tem.

THE ARCHITECTS' ASSISTANT WELFARE COMMITTEE.

A general meeting of architects' assi tants was held at the Architectural Ass ciation, 35, Bedford Square, W.C.1, c May 16. Mr. H. H. Wigglesworth, wh was in the chair, explained that the mee ing had been called for the purpose electing five assistants to serve on th newly formed Assistants' Welfare Con mittee. He said that there were at pr sent many schemes under consideratic in connection with the reorganisation



RAILWAY CAR SHEDS AND REPAIR SHOPS: DETAIL OF ROOF.

architectural profession after the war, of the first to be launched being this lfare Committee, which is designed ly in the interests of, and for the efit of, assistants.

t is proposed that the new committee, ch includes representatives of the .B.A., the A.A., the Society of Archi- s, and unattached assistants, should l with all matters affecting the welfare ssistants. There were many problems ing from time to time which would urally be settled as between principal assistant, but there were others which cerned the whole body of assistants, ch could preferably be discussed by h a committee as is now formed. All blems dealt with by this committee uld be regarded from the mutual point view, and the constitution of the com- tee would afford an opportunity of hanging views and harmonising inte- s as between master and man which ht sometimes appear to be conflicting.

he Institute had nominated Mr. G. R. Mackenzie as their representa- ; the Society of Architects, Mr. R. lbourn Lovell; and the Architectural ociation, Mr. H. H. Wigglesworth; Mr. Yerbury had consented to act as etary. The desire was that the majo- of the committee should be composed ssistants.

le (the chairman) felt that the field of rations for the committee was very e, more especially as after the war y conditions would have to be altered.

le now proposed for election the follow- assistants who had been nominated to e on the committee: Mr. R. A. can, Mr. F. S. Haynes, Miss E. Lowy, C. McLachlan, and Mr. Charles kford.

lr. A. O. Collard supported the elec- , and hoped that one of the objects of committee would be, not only to keep egister of young assistants who come back from the war and require engagement, but also to keep a register of employers as well, and really be a link between those who wanted work and those who wanted help.

The nominations were then put to the meeting and agreed unanimously.

Mr. Charles Pickford said that when he read the notice of the proposed formation of the committee he thought that it was an excellent idea, and for that reason he offered his services. He thought that there was a very large opening for such a committee, and inquired whether it was proposed that the committee should be in the nature of a benevolent committee or an arbitration board, to deal with any matters arising between employers and assistants. Mr. Wigglesworth replied that the committee would bring both architects and assistants together, and so further promote the harmony which fortunately already existed in the profession. There was scarcely any limit to the possible activities, but the committee itself would decide upon its own programme. He suggested, however, that benevolence should be one of its objects. It should watch the interests of assistants generally and bring to the notice of existing organisations any measures which could be suitably undertaken by them. He felt sure the committee was needed and that it would be a success, and he hoped that it would be cordially supported by the whole profession.

COMING EVENTS.

Wednesday, May 29.

Royal Society of Arts.—Mr. Martin O. Forster, D.Sc., Ph.D., F.R.S., on "Organic Chemistry in Relation to Industry," at 4.30 p.m. Sir William A. Tilden, D.Sc., LL.D., F.R.S., will preside.

NEWS ITEMS.

Notice of Removal.

Mr. Howard H. Thomson, architect, has taken over the practice of Major H. L. Goddard and the late Mr. Walter Catlow. As from May 14 his office address will be 8, Market Street, Leicester. Telephone 2338.

A Collection of Concrete Products.

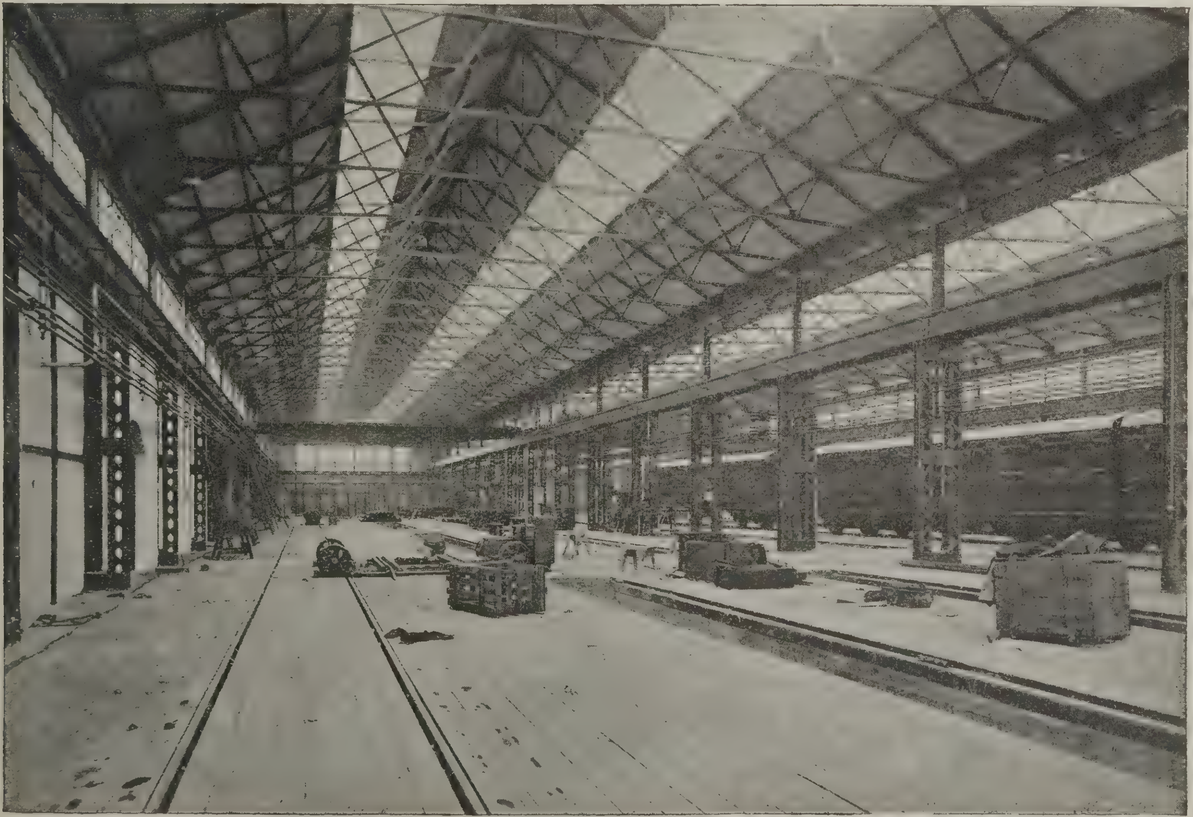
A permanent collection of concrete products has been arranged by the Concrete Utilities Bureau at 143, Grosvenor Road (near Vauxhall Bridge). The articles will be on view on Wednesday and Thursday, May 29 and 30, at 2.30 p.m.

Another List of Enemy Firms.

The Controller of the Foreign Trade Department has issued a new list of additions to the statutory list of firms of enemy nationality, or enemy association, with whom persons in the United Kingdom are forbidden to trade. Copies of this list can be obtained at a trifling cost from the Superintendent of Publications, H.M. Stationery Office, Imperial House, Kingsway, W.C.

British Artists at the Front.

"British Artists at the Front" is the sequel to "The Western Front," which was illustrated entirely by Lieut. Muirhead Bone. Part I. of "British Artists at the Front" was illustrated by Mr. C. R. W. Nevinson. The new part just issued is devoted to the work of Sir John Lavery, who has been given special facilities to obtain an insight into the war conditions on the home front. Mr. Robert Ross contributes a note on the artist, while Captain C. E. Montague refers to "The Front's Foundations." Copies may be obtained from the offices of "Country Life," Ltd., 20, Tavistock Street, Covent Garden, W.C., price 5s. net each.



RAILWAY CAR SHEDS AND REPAIR SHOPS: GENERAL VIEW OF INTERIOR.

ARCHITECTS AND THE CAMOUFLAGE SERVICE.

Mr. Aymar Embury II. has addressed the following letter to our contemporary the "Architectural Forum":

It is said that the English have made but little use of their architects, or, rather, have found but few places in which their training would be of benefit; but the United States has seemed to realise that the training required for the architectural profession fits its members for very many military purposes, and for some in a very high degree.

Necessary Qualifications.

Among the branches of military services camouflage has become conspicuous out of all proportion to the number of men engaged in it, although perhaps not out of proportion to its usefulness, and among the professions and trades which are conspicuously successful in producing the type of men who become good camoufleurs is the profession of architecture. This is for two reasons: First, the profession brings forth the ability to visualise results and to make drawings or sketches which will enable others to produce these results; second, architects with any extended practice have learned to handle men, not only draughtsmen, but mechanics and labourers. This latter qualification is of nearly as much importance as the first, since, contrary to the generally accepted idea of camouflage work, it does not consist chiefly of panoramic landscape painting, but in the preparation of large surfaces which in texture and colour resemble, or mimic, natural objects, and which must be made and set up by squads of men and not by individuals.

The average artist-painter—I qualify painter, for there are four varieties officially recognised as desirable for camouflage—artist-, house-, sign-, and scene-painters—has not had much experience in handling men, and does not always exhibit the combination of tact and firmness necessary to successful military discipline—a very necessary requirement in the Service. On the other hand, there are few architects who have the knowledge of colour components and values necessary to simulate successfully natural colours and objects, and it is from the painters that the most useful information as to how to go about the preparation and colouration of camouflage has been learned, and some among them have shown extraordinary quickness in grasping military affairs.

Military Discipline Essential.

Perhaps I may digress to explain why the camouflage work is being done by men trained and equipped as soldiers, since the idea seems to be widespread that camouflage could be just as well done by artists and landscape men without the fuss and lost time involved in running a military organisation. In the first place, it is essential that all men sent abroad should be absolutely under control. It must be obvious that a civilian, perhaps a volunteer, could not be picked out of bed at three o'clock in the morning and ordered to do something. He might reply that office hours were from 8 a.m. to 5 p.m., and the only thing to do would be to discharge him. But one doesn't want to discharge men who have been trained for particular and indispensable duties and who have been transported abroad at considerable expense. Also, military training does do one thing that even the best-managed civilian association cannot do: it inculcates in employees, so to speak, the habit of doing what they are told to do instantly and regardless of circumstances. The civilian will run away from shell fire which the disciplined man, no braver to begin with, scarcely notices—one man is his own master, the other has no independent volition.

It may be interesting to you to know why the army is strict about living up to the physical requirements as to eyesight, weight, age, etc. It ought to be, but does not appear to be, perfectly obvious that the man who is dependent upon glasses for his usefulness is worthless if they are broken. The army at times cannot afford to lose a man's services for a day while a new pair is being fitted, even if a new pair can be obtained at all. The question of weight is a little more difficult to make clear, but as each man has to carry from sixty to sixty-five pounds on his own feet, it is necessary that he should be as strong as the average, and it has been found that the thin man tires more quickly than those whose weight is about two pounds to the inch of height. Of course, fat men tire quickly, too, but there are no fat men in the army very long, nor are they discharged—they get thin and hard.

Not a "Cushy" Job.

Quite a number of people seem to think the camouflage service offers a safe and easy army berth, and we have had a number of applications based on this understanding. As a matter of fact, it is as arduous as any, and as dangerous as any, except the machine-gun service; but for the most part the men who have written that they wanted to enlist have done so because they honestly felt that they could be of service, and among these have been a great many architects and architectural draughtsmen. I cannot tell you how fine they have been. I have always been proud of my profession, but never more so than to-day when I have had an opportunity to see not only how many have been willing to come, but how they have made good. Most of them are young men of the type which are head draughtsmen and superintendents in the big offices, and many of them will no doubt be commissioned before this war is over.

I think a great compliment was paid to the profession when Major Evarts Tracy (of Tracy and Swartwout) was selected to begin organisation. He was assumed to have, and has, excellent judgment of men, and extensive acquaintance among the men fitted to be camoufleurs. He has certainly selected a wonderful lot of men. Among the first officers selected were First Lieutenant Laurance Hitt, of New York, an architect who had been driving an ambulance abroad and had been decorated by the French Government for gallantry, and First Lieutenant André Smith, who is as well known for his etchings as for his architecture. Since Major Tracy left, I have been honoured by being given charge of the training, equipment, and personnel of camouflage troops.

The Personnel.

One company only has been authorised up to the present time, though more will doubtless be authorised at an early date, perhaps within a couple of weeks. A number of the best men in this company are architects or architectural draughtsmen, men like Burnham Hoyt, B. G. Goodhue's head draughtsman; Austin Whittlesey, also from Goodhue's, who was Le Brun scholar last year; and W. D. Foster, head draughtsman in H. Va Buren Magonigle's office. Other Ne York men are Van Horne D. Wolfe, Walker and Gillette's office; Thomas Raguere, Ralph T. Walker, of Goodhue's S. N. Hartell, who conducted his own offi in the Architect's Building; Bru Rabenold, of W. W. Bosworth's office Prentice Sanger, Nelson Spalding, wh gave up his office to enlist; Grevil Rickard, of Cass Gilbert's office; an Ralph E. Griswold, a landscape archite in New York. David C. Comstock left professorship in Cornell and has do splendidly as a soldier; Charles F. Brunc horst came from Schmidt, Garden, an Martin's office in Chicago; Nelson Voo hees was a University of Michigan ma Alexander MacLean, Oliver Larson Minneapolis; Reah de Bourg Robinso from Wilmington; and Abraham Rattne one of the cleverest colourists in the fir company, are others among the architec and draughtsmen.

As a considerable amount of transplan ing of trees and shrubbery is necessar some landscape artists were included in th personnel list, most of them young me but of excellent professional standing or good practical experience. Ralph E. Gri wold is a Cornell graduate and has bee practising in New York: Thomas Seyster is a Princeton man who has com from Chicago; Robert A. Clifford has bee in charge of the decorations of several b New York hotels and did the planting the Far East Gardens in the Vanderbil the Japanese Gardens at the Ritz, and al work at Newport.

Most of the men in the company are the type of those who have been mentione by name, not yet distinguished as practi ing architects, but of great skill and po sessed of youth, experience and trainin and thus far none has proved more ferti in invention, more apt in military affair or persevering in devotion to training tha the architect.

It is perhaps unnecessary for me to sa how pleasant it is to be able to tell yo about these men in our profession who ha already joined, and I am enclosing a list them, but there are in addition to the men a good many who have enlisted b are not actually joined to the company, b are held at recruiting depôts until a pla can be found for them. I want to say al that any architects or architectur draughtsmen of experience who are int rested in the work will be welcome as soo as there is a place to use them, and I ma be reached either by mail or personally the Office of the Chief of Engineers, Stat War, and Navy Building, Washingto D.C.

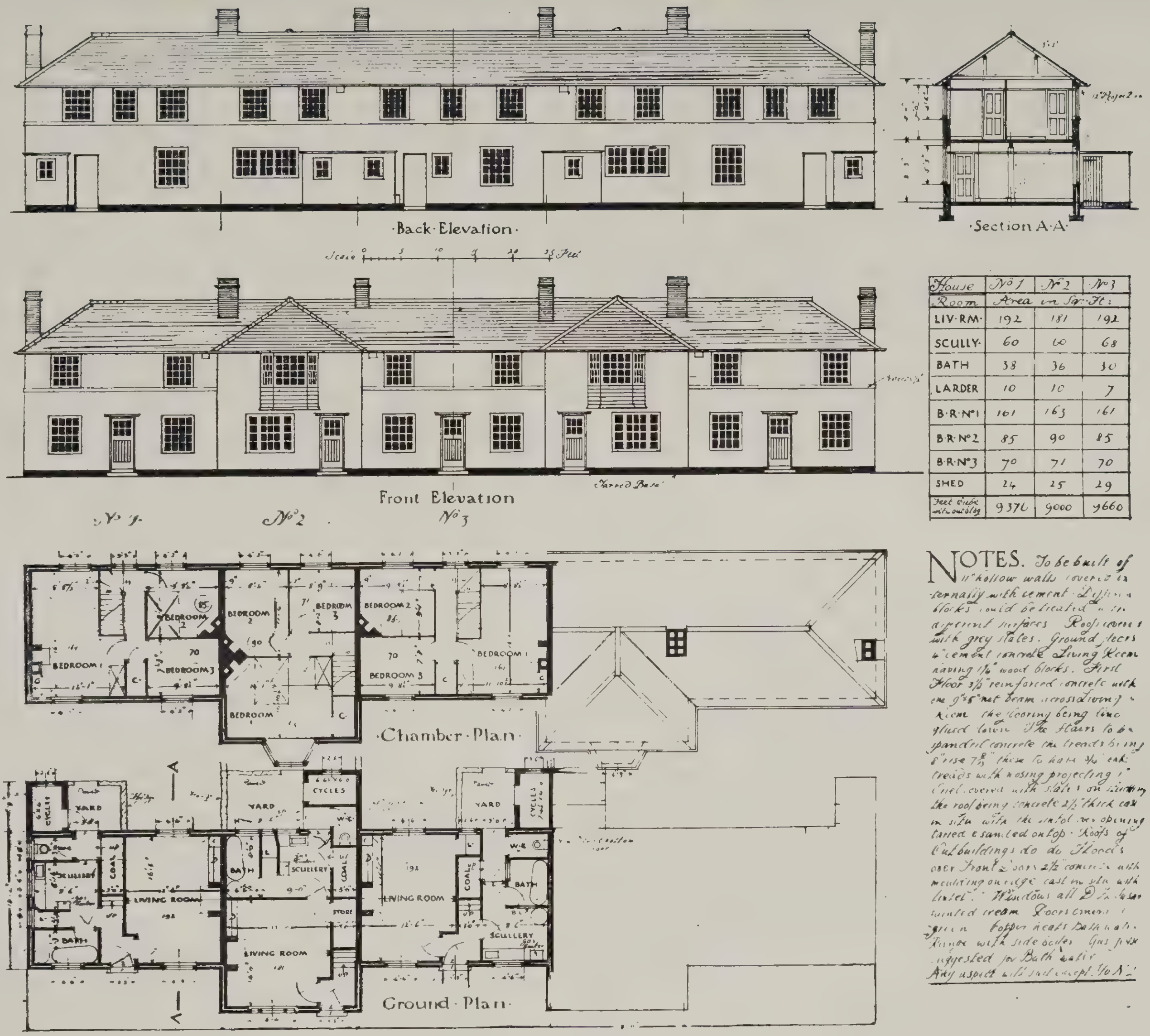
Yours very truly,

AYMAR EMBURY II.

Captain, Corps of Engineers, U.S.R.

List of Architects in First Camoufla Company:

Charles F. Brunckhorst, David C. Com stock, W. D. Foster, Roy C. Jones, Oliv Larson, Louis V. Voorhees, Austi Whittlesey, Fred R. Lorenz James Wilson, Cromwell H. Case, Clifford Jones, John H. Eastman, Abraha Rattner, Thomas E. Seyster, V. P. Spal ing, G. F. Axt, Burnham Hoyt, Everit Herter, Alexander MacLean, Thomas Raguere, Reah de Bourg Robinson, Va Horne, D. Wolfe, Ralph T. Walke Robert A. Clifford, Walter C. Cliffor Ralph E. Griswold, S. N. Hartell, Bru Rabenoid, Greville Rickard, Prentic Sanger, Sheldon Viele, G. Dexter.



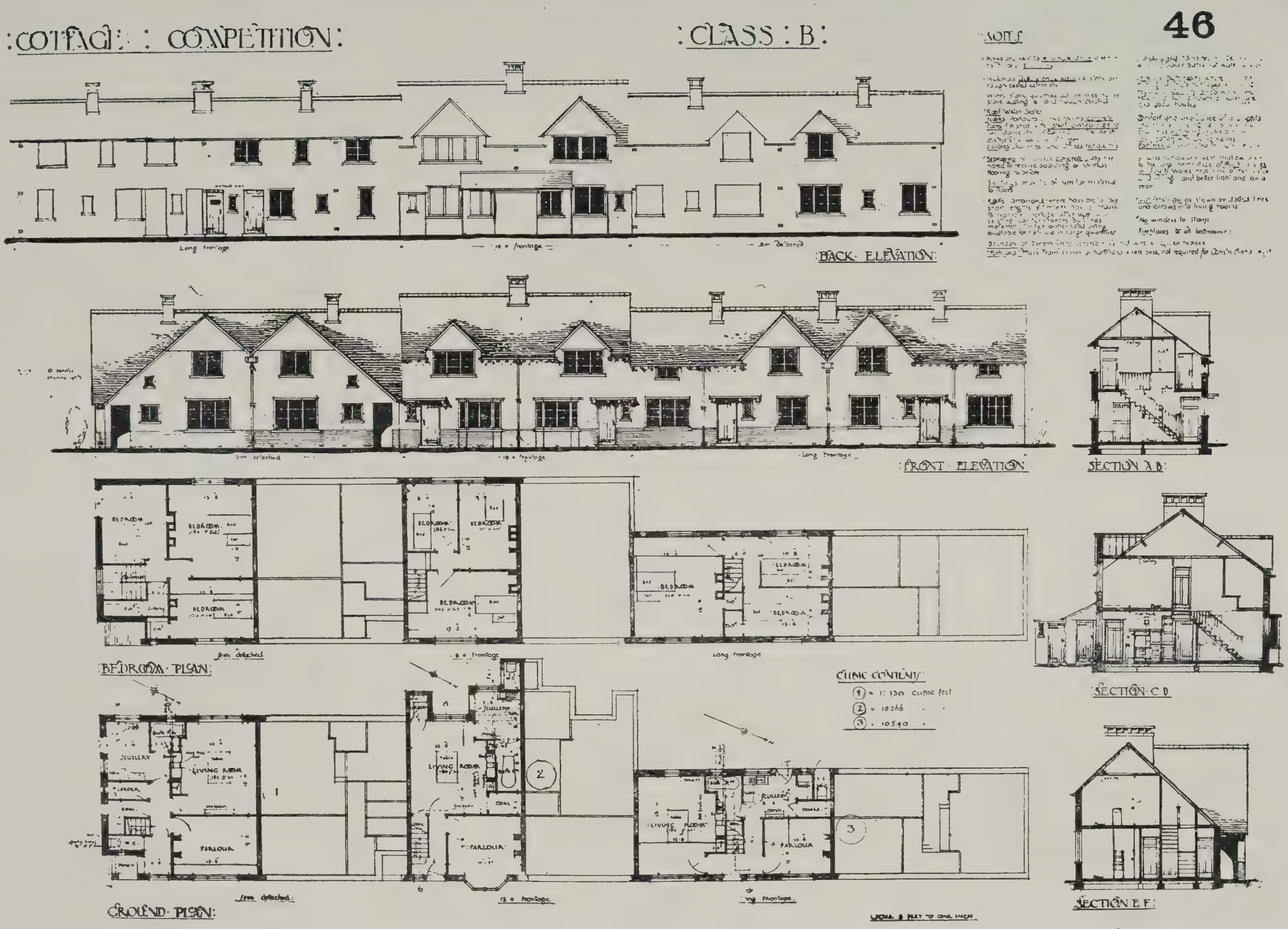
House	No 1	No 2	No 3
Room	Area in Sq. Ft.		
LIV·RM·	192	181	192
SCULLY·	60	60	68
BATH	38	36	30
LARDER	10	10	7
B·R·No 1	161	163	161
B·R·No 2	85	90	85
B·R·No 3	70	71	70
SHED	24	25	29
Feet Cube without bldg	9376	9000	9660

NOTES. To be built of 11" hollow walls covered externally with cement. Different blocks could be treated with different surfaces. Roofs covered with grey slates. Ground floors 6" cement concrete, Living Room having 1¼" wood blocks. First Floor 3½" reinforced concrete with one 9"×5" net beam across Living Room, the flooring being lino glued down. The stairs to be spandril concrete, the treads being 8" rise 7 8/15" these to have ¾" oak treads with nosing projecting 1". Roof covered with slates on battens, the roof being concrete 2½" thick cast in situ with the lintol over opening, tarred & sanded on top. Roofs of Outbuildings do. do. Hoods over Front doors 2½" concrete with moulding on edge cast in situ with lintel. Windows all D.H. sashes painted cream. Doors emerald green. Copper heats Bath water. Range with side boiler. Gas geyser suggested for Bath water. Any aspect will suit except N.

CURRENT ARCHITECTURE (SERIES V.). XXIII.—R.I.B.A. NATIONÁL HOUSING COMPETITIONS (SOUTH WALES AREA): FIRST-RREMIATED DESIGN, CLASS A.

J. A. HALLAM, ARCHITECT.

OF THE
ILLINOIS



CURRENT ARCHITECTURE (SERIES V.). XXIV.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH WALES AREA): FIRST-PREMIATED DESIGN, CLASS B.

JOHNSON AND RICHARDS, ARCHITECTS.

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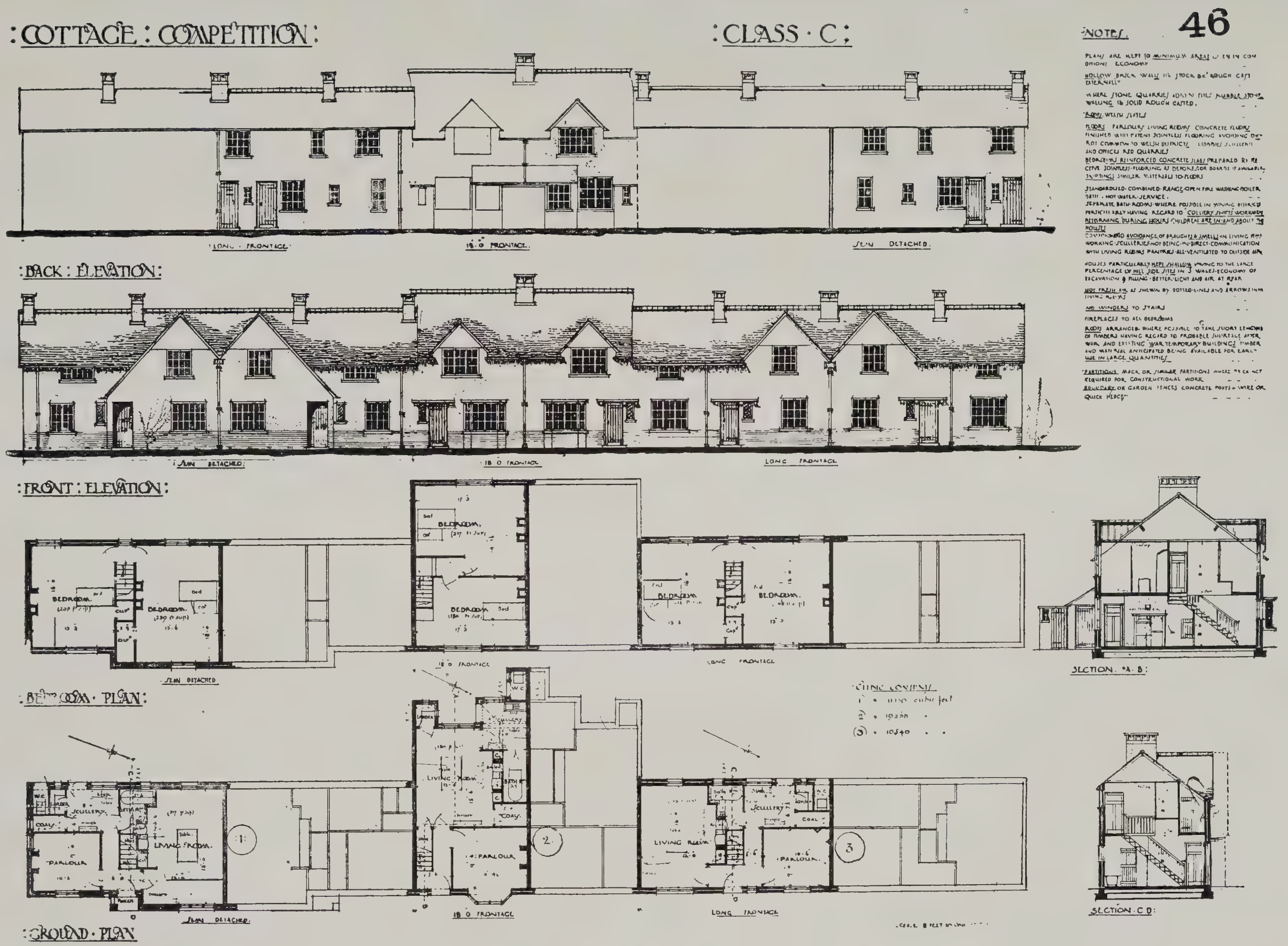

NOTES.

PLANS ARE KEPT TO MINIMUM AREAS GIVEN IN CONDITIONS ECONOMY

HOLLOW BRICK WALLS 11" STOCK BK' ROUGH CAST EXTERNALLY

WHERE STONE QUARRIES ADJOIN SITES RUBBLE STONE WALLING 18" SOLID ROUGH CASTED.

ROOFS WELSH SLATES

FLOORS PARLOURS LIVING ROOMS CONCRETE FLOORS FINISHED WITH PATENT JOINTLESS FLOORING AVOIDING DRY ROT COMMON TO WELSH DISTRICTS. LOBBIES SCULLERY AND OFFICES RED QUARRIES

BEDROOMS REINFORCED CONCRETE SLABS PREPARED TO RECEIVE JOINTLESS·FLOORING AS BEFORE/OR BOARDS IF AVAILABLE, SKIRTINGS SIMILAR MATERIALS TO FLOORS

STANDARDISED·COMBINED·RANGE·OPEN FIRE WASHING BOILER BATH . HOT WATER·SERVICE.

SEPARATE BATH·ROOMS·WHERE POSSIBLE IN MINING DISTRICTS PARTICULARLY HAVING REGARD TO COLLIERY SHIFTS WORKMEN RETURNING DURING HOURS CHILDREN ARE IN AND ABOUT THE HOUSES

CONVENIENCE AND AVOIDANCE OF DRAUGHTS & SMELLS IN LIVING RMS WORKING·SCULLERIES NOT BEING·IN·DIRECT·COMMUNICATION WITH LIVING ROOMS PANTRIES ALL·VENTILATED TO OUTSIDE AIR

HOUSES PARTICULARLY KEPT SHALLOW OWING TO THE LARGE PERCENTAGE OF HILL SIDE SITES IN S WALES·ECONOMY OF EXCAVATION & FILLING·BETTER·LIGHT AND AIR AT REAR

HOT FRESH AIR AS SHEWN BY DOTTED·LINES AND ARROWS INTO LIVING ROOMS

NO WINDERS TO STAIRS

FIREPLACES TO ALL BEDROOMS

ROOFS ARRANGED WHERE POSSIBLE TO TAKE SHORT LENGTHS OF TIMBERS HAVING REGARD TO PROBABLE SHORTAGE AFTER WAR AND EXISTING WAR TEMPORARY BUILDINGS TIMBER AND MATERIAL ANTICIPATED BEING AVAILABLE FOR EARLY USE IN LARGE QUANTITIES

PARTITIONS BRICK OR SIMILAR PARTITIONS WHERE [illegible] NOT REQUIRED FOR CONSTRUCTIONAL WORK

BOUNDARY OR GARDEN FENCES CONCRETE POSTS & WIRE OR QUICK HEDGES

CURRENT ARCHITECTURE (SERIES V.). XXV.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH WALES AREA): FIRST-PREMIATED DESIGN, CLASS C.

JOHNSON AND RICHARDS, ARCHITECTS.

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NOTE:

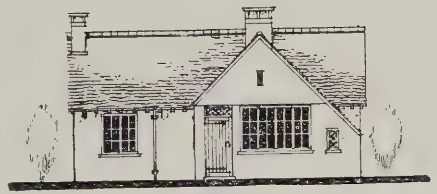
Standardized combined range open fire boiler bath & Hot water service ......

Seperate bath rooms in mining districts particularly having regard to colliery shifts workmen returning during hours children are in and about houses ...

Comfort and avoidance of draughts and smells in living rooms working sculleries not being in direct communication with living rooms ....

Pantries ventilated to outside air .....

Houses planned detached as shewn but also suitable as semi detached as shewn on plan by dotted [illegible] ....



:FRONT · ELEVATION:

NOTES:

Plans are kept to minimum area given in conditions Economy

materials hollow brick walls [illegible] brick rough casted externally ......

where stone quarries adjoin sites rubble stone walling is solid rough casted ....

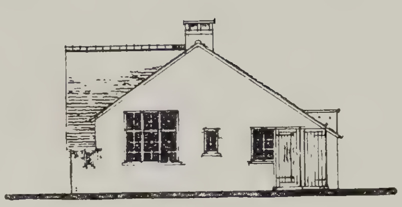
[illegible] ....

Living room & bedrooms [illegible] floors [illegible] patent jointless flooring avoidance dry rot so common to Welsh districts ...

[illegible]

Lobbies sculleries offices red quarries ....

o denotes opening lights



SIDE ELEVATION:

NOTES

Hot fresh air as shewn by the dotted lines and arrows in the Living room ......

Fireplaces to all bedrooms ....

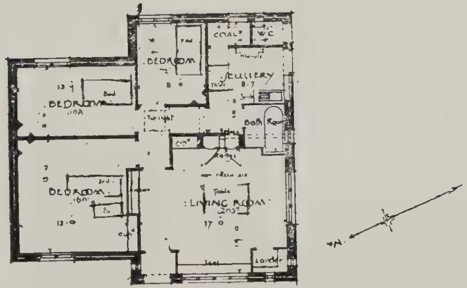
Roofs arranged to take short lengths of timber having regard to probable shortage after war & existing war temporary buildings material [illegible] timber [illegible] being available [illegible] use in large quantities ....

Boundary and garden fences in concrete posts and iron wire or quick hedges .....

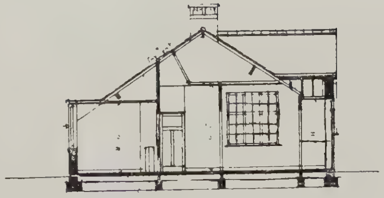
No back additions ......

Where brick walls not required for constructional purposes [illegible] patent [illegible] will be used [illegible] ......

:Scale · 8 · Feet to one Inch:



:GROUND · PLAN:



:SECTION · A B:

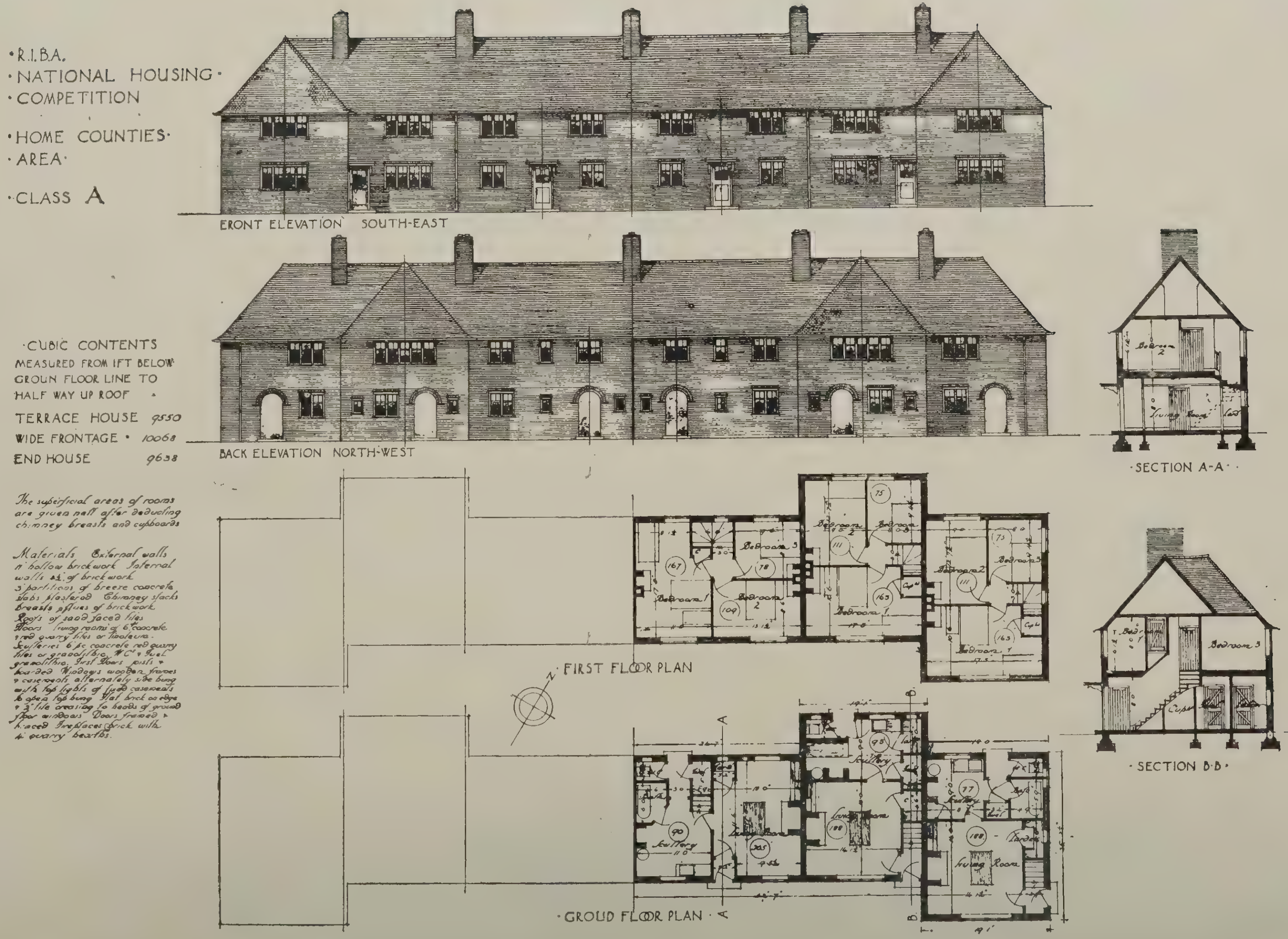
Cubic · Contents:
11904 cube feet:

:CLASS · · D:

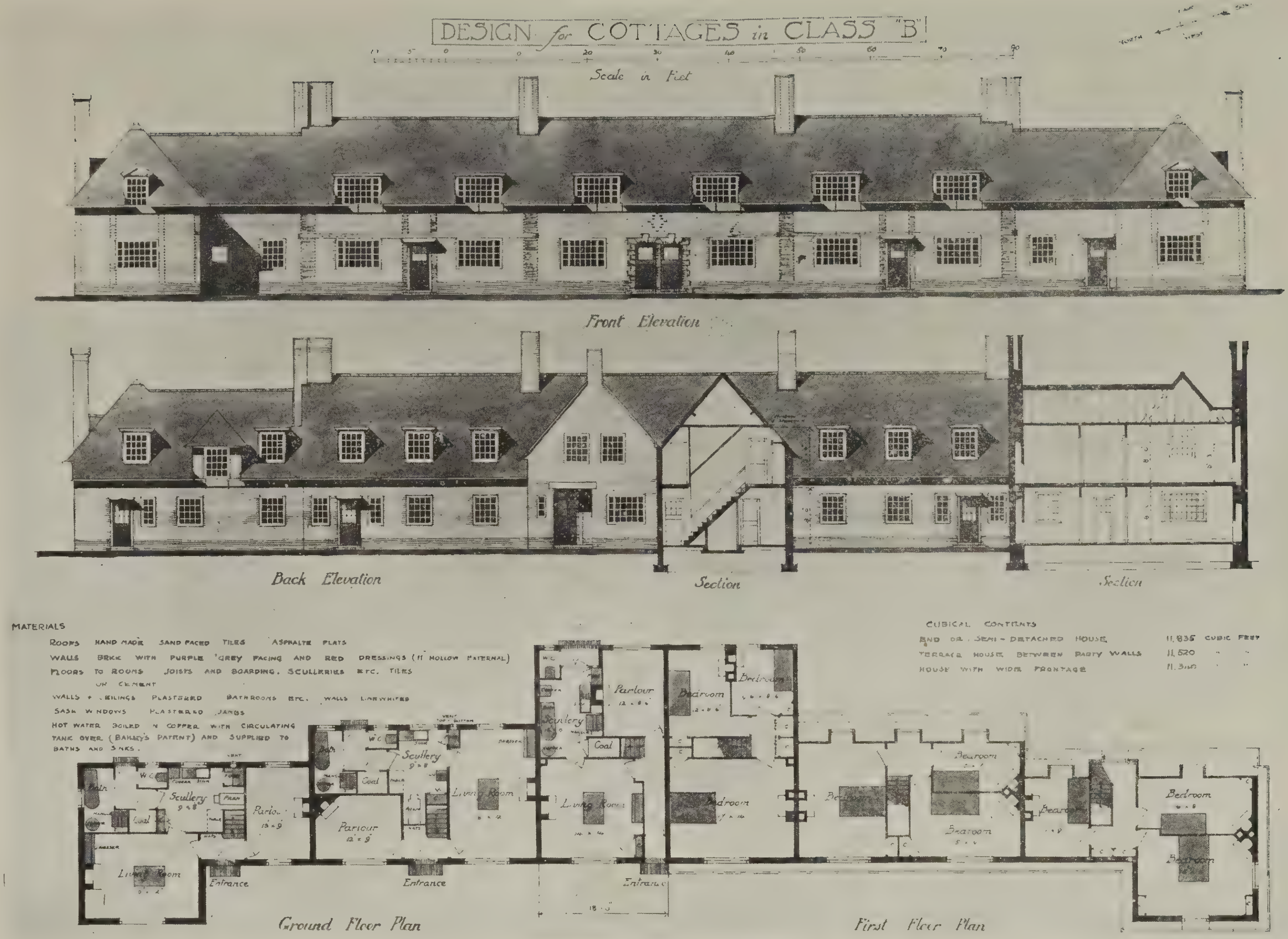
CURRENT ARCHITECTURE (SERIES V.). XXVI.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH WALES AREA): FIRST-PREMIATED DESIGN, CLASS D.

JOHNSON AND RICHARDS, ARCHITECTS.

ARB


·R.I.B.A.
·NATIONAL HOUSING·
·COMPETITION
·HOME COUNTIES·
·AREA·
·CLASS A
FRONT ELEVATION SOUTH-EAST
BACK ELEVATION NORTH-WEST
·CUBIC CONTENTS
MEASURED FROM 1FT BELOW
GROUN FLOOR LINE TO
HALF WAY UP ROOF
TERRACE HOUSE 9550
WIDE FRONTAGE · 10068
END HOUSE 9638
The superficial areas of rooms are given nett after deducting chimney breasts and cupboards
Materials External walls 11" hollow brickwork Internal walls 4½" of brickwork 3" partitions of breeze concrete slabs plastered Chimney stacks breasts & flues of brickwork. Roofs of sand faced tiles Floors living rooms of 6" concrete & red quarry tiles or linoleum. Sculleries 6" c concrete red quarry tiles or granolithic. W.C. & fuel granolithic. First floors joists & boarded Windows wooden frames & casements alternately side hung with top lights of fixed casements to open top hung Flat brick on edge & 3" tile creasing to heads of ground floor windows Doors framed & braced Fireplaces brick with 4" quarry hearths.
·SECTION A-A·
·SECTION B-B·
Bedroom 2
Living Room
Bedroom 3
Bedroom 1
Scullery
Larder
·FIRST FLOOR PLAN
·GROUD FLOOR PLAN·
A
B
N

SECOND-PREMIATED DESIGN, CLASS A. F. C. M. BARRETT, ARCHITECT.


DESIGN for COTTAGES in CLASS "B"
Scale in Feet
Front Elevation
Back Elevation
Section
Section
MATERIALS
ROOFS HAND MADE SAND FACED TILES ASPHALTE FLATS
WALLS BRICK WITH PURPLE GREY FACING AND RED DRESSINGS (11" HOLLOW EXTERNAL)
FLOORS TO ROOMS JOISTS AND BOARDING. SCULLERIES ETC. TILES OR CEMENT
WALLS + CEILINGS PLASTERED BATHROOMS ETC. WALLS LIMEWHITED
SASH WINDOWS PLASTERED JAMBS
HOT WATER BOILED IN COPPER WITH CIRCULATING TANK OVER (BAILEY'S PATENT) AND SUPPLIED TO BATHS AND SINKS.
CUBICAL CONTENTS
END OR SEMI-DETACHED HOUSE 11,835 CUBIC FEET
TERRACE HOUSE BETWEEN PARTY WALLS 11,520 " "
HOUSE WITH WIDE FRONTAGE 11,340 " "
Bath
W.C.
Scullery 9×8
Coal
Parlour 13×9
Living Room
Entrance
Parlour 12×8
Scullery 9×8
Living Room
Entrance
Parlour
Scullery
Coal
Living Room
Entrance
18' 0"
Ground Floor Plan
Bedroom
Bedroom
Bedroom
Bedroom
Bedroom
Bedroom
Bedroom
Bedroom
Bedroom
First Floor Plan

FIRST-PREMIATED DESIGN, CLASS B. ALFRED COX, ARCHITECT.

CURRENT ARCHITECTURE (SERIES V.). XXVII.—R.I.B.A. NATIONAL HOUSING COMPETITION DESIGNS (HOME COUNTIES AREA).

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

JUNE 5, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1222.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restric- ons on paper supplies, all elements of waste must e rigorously excluded. Our readers, we are sure, ill gladly assist in promoting this object, which is n item in national economy. They can co-operate ith us effectually in either of two ways—(1) By lacing a direct subscription for this Journal, or (2) y placing with a newsagent an order for its regular elivery.

The Government Paper Controller has now for- idden the return of unsold copies of newspapers nd periodicals to the publishers. Newsagents are erefore now keenly interested in the elimination f the casual customer—and are morally compelled obtain only those papers that have been previously rdered. This fresh development strongly nphasises the foregoing advice to place a direct ibscription or to give a newsagent a standing order r regular delivery.

MR. WALTER GEORGE BELL'S paper on "The Re-building of London After the Great Fire of 1666," read before the Institute in arch, and briefly summarised in our issue of arch 13, evoked a most interesting discussion, which as led by Dr. Philip Norman, who made important lditions to the information conveyed in Mr. Bell's iper. Dr. Norman does not share in the regret, hich has become almost a commonplace of town- anners, that Wren's scheme for reconstruction was ot adopted. It would have swept away many most teresting things that now remain to us. "We should ive lost the historic streets, and the historic sites of urches and companies' halls, probably also the iburnt portions within the walls." There spake the itiquarian; and architects with an antiquarian bias ust often be torn by a rather cruel internal conflict etween the progressive and the conservative instinct. 'e cannot always have it both ways. There is a eculiar fascination about Wren's scheme for group- g all the halls of the City companies in a square, with e Guildhall as a central feature, more especially since, Dr. Norman's opinion, the attribution to Wren otably by Elmes) of a dozen or so of these halls is isleading. Dr. Norman could not ascertain that 'ren designed any hall in the City. Certainly, they ere rebuilt in Wrennian style, and Wren must have fluenced much work which he neither designed nor pervised. It seems likely, therefore (although Dr. orman must not be held responsible for this view), at we get three classes of buildings in the Wren anner—those which he actually designed, those iich were designed or executed (or both) under his pervision, and those in which his methods were iitated, and there is a natural disposition to attribute em all to him.

* * * *

A further interesting point mentioned by Dr. orman was that, being limited as to funds, Wren, in building the City churches, made the best use he uld of the old walls and towers. In several towers for instance, those of St. Anne and St. Agnes, St. idrew Holborn, St. Mary Aldermanbury, and St. ary Aldermary—the lower part belonged to the rmer building; and occasionally when, unhappily, a ren church has been demolished, important remains of an earlier building have come to light, as at St. Michael Wood Street, where interesting remains of a fifteenth-century church were unexpectedly discovered. In London and other large towns, such remains are usually detected, studied, and recorded by keen-eyed antiquarians; but it is sad to think that in more obscure places, where archæologists are not on the spot, and do not even hear of an intended demolition, much interesting work may be heedlessly consigned to oblivion unnoted. When St. Michael Bassishaw was pulled down, Dr. Norman was fortunately at hand to take note of the fifteenth-century tower, chalk foundation walls, and the entrance to Sir John Gresham's vault. Towards the close of his most valuable address, Dr. Norman destroyed an illusion which he traced to Mrs. J. H. Riddell's novel "Mitre Court," in which a fine old house in a courtyard opening into Botolp Lane was erroneously assumed to be "Wren's house"; whereas there is no contemporary evidence of Wren's ever having had any connection with it. Fictionists are great falsifiers of fact, yet for the general public they are the chief sources of education in so-called history and in equally dubious morality. On the latter count, however, Mrs. Riddell goes free. She was impeccably respectable—and commercial.

* * * *

Not the least valuable quality of keen discussion of a paper is its stimulation of the author. Dr. Norman, Professor Beresford Pite, and Mr. W. R. Davidge dropped observations or asked questions that elicited much interesting supplementary information. Professor Pite, in seconding the vote of thanks, had observed that in London there was no street architecture as we understand it, and no architect proper, until Inigo Jones poured out his treasures of art and Christopher Wren revealed the virtues of applied science. Street architecture began when Inigo Jones "introduced the idea into Lincoln's Inn Fields of combining houses into a façade"; and the "stock-in-trade of the ordinary architect" was assembled by Wren. In stating that before the Great Fire there were no architects because there was no street architecture, Professor Pite, as Mr. Bell said, "put into epigram what seems to represent very closely the actual fact." Mr. Davidge raised the topical question whether Mr. Bell had found any evidence of preferential control of materials or labour for public building after the Great Fire. Mr. Bell could not recall any, but he cited the interesting fact that men at work on the royal harbour work at Sheerness forsook it to go to London, whereupon the King gave orders to the Masons' Company and the Bricklayers' Company to impress men for the work at Sheerness. To-day we are doing much the same sort of thing, only we have refined on the crude methods of the press-gang.

* * * *

A very gallant attempt to solve the problem of unifying the arts and crafts of building is made in the correspondence columns of the Institute Journal by Mr. W. Watkins, sen., of Lincoln, who develops into a constructive scheme the suggestion by Professor Beresford Pite that architecture and operative building should be united and practised under one management. Mr. Watkins argues that as the mediæval masons' guilds "developed and constructed the finest architecture the world has ever known," it may be permissible to expect comparable results from similar unity. To that end, why not reorganise the Institute on Guild lines, with the modifications necessitated by the differences between ancient and modern appliances and resources? Science must enter largely into the account. Rudimentary knowledge of the fundamental physics of the universe should be imparted in the elementary schools, and the application of those natural laws to building should be taught at a technical college having specially equipped schoolrooms and workshops, and the students should have opportunities of studying buildings in the making. Therefore, a working builders' yard and shops should be established near the college. Mr. Watkins suggests also that a reorganised Institute, which might be designated "The Royal Institute of Builder Architects," should have its headquarters not in London, but in or near some small and respectable provincial town, where living would be cheaper and the temptations to evil less flagrant. This Institute is to consist of Masters, Fellows, Associates, Graduates, and Industrial members. An industrial member would be a non-subscriber, who, after probation, would receive a certificate of good character and of his fitness and ability to execute the kind of work on which he seeks to be employed. If he were very good he might be accorded the privilege of using the initials I.R.I.B.A. after his name.

* * * *

No one under the degree of a Master is to be eligible for appointment as manager of a building establishment, "nor should any member be entitled to design an important building for execution without the sanction of the Council." That is in the spirit of the mediæval guilds; but the "close corporation" does not stand much chance to-day, except, perhaps, as an ephemeral reaction against the exaggerated individualism that is even more objectionable. Granted that this latter excess has led up to a demand for co-operation and co-ordination, and that war-time organisation of personal and material resources has demonstrated conclusively if imperfectly the enormous advantages of pooling interests and energies, yet it by no means follows that the outworn and long since discarded methods of the Middle Ages can be profitably resuscitated in detail, as some enthusiasts would have us believe. Mr. Watkins is not to be classed among these reactionaries, but it could be wished that he had stood aloof from them a little more conspicuously, lest idle scoffers should unjustly class him among the Guild cranks. His proposals deserve, indeed, very serious attention, if only because, whatever their intrinsic value as an essay in reconstruction, they afford one more proof of the growing desire for the consolidation of interests that are sadly weakened by diffusion: which is a roundabout way of saying that union is strength. For this diffusion what may be called transfusion might be advantageously substituted. It may not be possible to fuse or confuse the functions of the architect and the builder; but it should be easily possible to bring these twain into closer communion. Already the élite come together at the clubs, but such meetings are merely sociable, and are much too select and exclusive. There should be larger opportunities for the rank and file of builders of all denominations to meet for conference, formal or informal, for interchange of thought and opinion on the art and industry of building: some common ground should be provided on which builders of all denominations — architects, contractors, decorators, craftsmen, labourers—could mingle freely and on equal terms. Building exchanges already perform this function fractionally, but they are of two pronounced a trade-and-barter type. What character the Builders' Parliament will assume when it takes its "final set" remains for proof; but these institutions leave space for a sort of mezzanine storey which shall serve as a clearing-house for the entire industry. Perhaps the Institute of Builders may be so transformed as to meet this need. It should endeavour to link
all the kindred organisations that are now at lo
ends—a formidable but not an impossible task, a
one that, if at all judiciously accomplished, wo
tone-up the industry to a degree of efficiency a
power hitherto unattained.

* * * *

In the United States, building has not been p
hibited. Mr. McAdoo, one of the Secretaries
State, even repudiates a statement that he
"appealed to property-owners not to construct a
houses or buildings during the war." This stateme
he says, "is entirely erroneous. I have said t
building operations which are not required to prot
the health or provide for the comfortable needs of
people or to supply facilities necessary for the pro
conduct of business essential to the successful prose
tion of the war should be postponed. . . . I h
no authority to direct that building operations be c
tailed. I have merely suggested that unnecess
building of that kind be postponed until after the w
Such postponement, I am sure, would help win the w
but every patriotic man must be determined by
own conscience in the matter, and must decide
himself if he can postpone the erection of a conte
plated building until the war is over. Complia
with this suggestion may cause some inconvenien
which are greatly to be deplored, but such inconve
ences are an unavoidable incident to the war.
situation must be viewed from a national and not fr
a local standpoint." It were superfluous to contr
either the substance or the tone and spirit of this utt
ance with the treatment to which the buildi
industry has been subjected in this country. But,
circumstances being widely different, it would
unfair to press the comparison.

* * * *

Air-raid shelters have been under exhaustive
cussion by the French Society of Public Medicine, a
a summary of the conclusions reached is given in "
Bâtiment." It is not specially helpful. Ventilat
should provide a minimum allowance of four cu
metres for each person that the shelter will hold, a
after each occupation all the doors and other means
ingress of air should be thrown open to the full
extent. Underground lavatories should not be u
as shelters, and places used as shelters should
frequently limewashed as a means of disinfection.
is recommended, somewhat ineptly, that pers
suffering from contagious maladies should
isolated as much as possible; and precautions sho
be taken against the effects of burst gas or wa
pipes; but in neither case were the means indicat
probably because local conditions are so variable t
only vague general advice can be given. That,
course, is useful as far as it goes; for, notoriously,
often the points that should be most obvious that
most generally disregarded. All the suggestions
forward by the French Society of Public Medicine
such as should occur to everybody. But do they?
has just dawned on our own authorities, as a matter
painful experience, that air-raid shelters are a pro
means of spreading disease, and also of provoking
On the last-named point the French Society base
recommendation that should stimulate our own cent
and local authorities. Air-raid warnings should
sounded at the earliest possible moment, to give eve
body the opportunity to dress completely, as a p
tection against the cold damp atmosphere of an und
ground cellar. Mr. Walter Bayes's Academy sen
tion, "The Underworld," has in it figures which sugg
that but little time was given for elaboration of toil
and we have noticed that gunfire has sometin
followed hard on what the good lady in "Punch" c
"the macaroons." Segregation of the unhealt
however, is a tougher problem.

HERE AND THERE.

NEVER before was interest in the land so keen as it is now. Everybody is tickling it with a hoe—I think the joke is Jerrold's—to make it laugh ith a harvest. Mr. Willett, that builder of perfect ouses, builded better than he knew when he projected s Daylight Saving or Summer Time Bill. He could ot have dreamt that his ingenious scheme for saving ne implied the staving-off of starvation. Certainly renders excellent service of that sort, by providing additional hour each day, on each day of the week, r the cultivation of vegetable food-stuffs. Multiply ese seven hours a week by the many thousands of lk who cultivate allotments or otherwise tickle the nd until it laughs, and we with it, at the U-boats, and u will get the difference between famine and fatness. ut you cannot work out the calculation, for the orkers are countless.

* * * *

Sunday and week-day you see them at it—old and ung, men and women and children, gentle and mple, rugged and refined, making the barren places em with fruitfulness. They are learning to love the ork with the love that sweetens toil—with, as Sir Villiam Gilbert sang, "An affection à la Plato for a ushing young potato, or a——" But I will not finish quotation that is not specifically complimentary to ur French Allies. Rather would I refer, with the most veneration, to the example which the French t us, centuries ago, of the intensive culture of small oldings.. It is quite commonly, but most erroneously, pposed that the division of French land into small oldings was a consequence of the Revolution, which doubt accentuated it, but found it in going order. ne effect of the Revolution was to throw off the yoke the seigneurs who oppressed the small-holders in the anner recorded by Arthur Young: "Walking up a ng hill to ease my mare, I was joined by a poor oman, who complained of the times, and that it was sad country; [I] demanding her reasons, she said er husband had but a morsel of land, one cow, and a oor little horse, yet they had a franchar (42lb.) of heat and three chickens to pay as a quit-rent to one eigneur, and four franchar of oats, one chicken, and ne sou to pay to another, besides very heavy tailles nd other taxes." Merciless taxation of the small-older was a potent cause of the Revolution.

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Young adds (he was travelling in France in 1789): An Englishman who has not travelled cannot imagine e figure made by infinitely the greater part of the untrywomen in France; it speaks, at the first sight, ard and severe labour: I am inclined to think that ey work harder than the men, and this, united with e more miserable labour of bringing a new race of aves into the world, destroys absolutely all symmetry person and every feminine appearance." That was hat the Revolution helped to alter, but our soldiers in rance report that the women there still toil terribly n the land; but so do our dear women, in war-time. Vomen, the psychologists tell us, overdo everything. hey work till they drop; whereas a man will quit hen he feels tired. I have been positively alarmed at e tremendous energy I have seen women putting into ade-work on the allotments. Heaven forbid that e coming revolution—an entirely peaceful one—in is country should perpetuate the conditions our onnie lasses are accepting so bravely and so cheer-illy "for the duration."

* * * *

Arthur Young's famous book—"Travels in France" -ends with a passage that is so remarkably apposite present conditions that I cannot forbear quoting it:

"Oil and vinegar—fire and water—Prussians and Austrians are united to carry war amongst 26,000,000 of men, arranged behind 100 of the strongest fortresses in the world. If we are deceived, and Frenchmen are not fond of freedom, but will fight for despotism—something may be done; for then France falls by the power of France: but if united but tolerably, the attack will be full of difficulties in a country where every man, woman, and child is an enemy that fights for freedom. But, suppose this idea erroneous—suppose an impression made—and that the German banners were flying at Paris. Where is the security of the rest of Europe? Is the division of Poland forgotten? Is an unforeseen union of two or three great Powers to protrude through Europe a predominancy dangerous to all? Gentlemen who indulge their wishes for a counter-revolution in France do not, perhaps, wish to see the Prussian colours at the Tower, nor the Austrian at Amsterdam. Yet success to the cause might plant them there. Should real danger arise to France, which I hold to be problematical, it is the business and direct interest of her neighbours to support her." Young knew this in 1792; the rest of us did not see it in 1870, nor realise it at all vividly until 1914!

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How ardently our citizens have gone back to the land was ludicrously illustrated a few weeks ago, when half a dozen of them were summoned for digging u without consulting the owners, the hockey-field belonging to a girls' school in a London suburb. If the war goes on much longer, some of those patriotic potato-raisers will add a further complication to the land problem by acquiring squatters' rights. For many reasons, it will not be easy to dispossess the allotment-holder. For one thing, he is adding to the wealth of the country. For another, the work keeps him healthy, fit, and contented. For yet another, he is acquiring an almost passionate love of the work, which appeals to one of his most deeply seated instincts. And his direct interest in the soil will give him new views of property in it and tenure of it. Presently he will be asking awkward questions about the mysteries of freehold, leasehold, copyhold. He will want to know on what principle of equity the man who cultivates the soil should have so large a share of the fruits of his labour taken from him by the man who does nothing to it, but merely "owns" it, and it will not be easy to satisfy him on this point, nor on that other perplexity of the plain man, why the tenant who improves the value of his land should have to pay more rent for doing it, or why—to recall the instance cited a week or two ago—a thrifty man should be taxed by the local authority for daring to make his cottage a more decent habitation.

* * * *

These inveterate absurdities, sanctioned though they be by immemorial custom, and entangled inextricably in the meshes of the law, will hardly survive the fresh and keen scrutiny of the crowds of plain blunt men who have accepted with such alacrity the frantic appeals to them to come on to the land. It is easy to foresee a drastic reformation of the land laws, simultaneously with sweeping changes in the method of taxing house-property. Soldiers from France will bring back with them marvellous stories of the prosperity of the myriad peasant-proprietors there, and of the ease and simplicity with which land can be transferred. There is, it is true, a tax on the transaction, but it goes to public account. And a man does not, as he may in England, grow poorer by improving his property.

DIOGENES.

HOUSING AND THE WORKING MAN.—II.*

BY C. H. B. QUENNELL, F.R.I.B.A.

LET us assume that by a system of land registration, not "unique for its futility and costliness," it became possible to obtain land simply, readily, and cheaply; such land to be held for life only, returnable to the State at death, or divided between all the children. It is difficult to see how there can be a sufficient supply of land unless the great estates are broken up, and to do this means nothing less than altering the law of settlement, by which the landowner in England safeguards his property. But alterations will have to be made if we are to do our duty by all these men, who, after the war, will want to settle on the land. It will be a crying scandal if one man *has* to go to the Colonies because he can't get land here to grow foodstuffs, build a cottage, and raise a sturdy family. Make it a possibility, and it should, I think, witness a back-to-the-land movement surprising in its volume and strength. Let me instance the way the allotments have been taken up; add the attraction of adding allotment to allotment, as the French peasant has, and then the chance of a house of your own in the middle of your holding, and there are few men who would not respond.

Under land registration you hold by a land certificate, and a register is kept of all charges there may be on the property. This being the case, bankers and others can more easily satisfy themselves as to the value of the security than is the case where land is held by private deed. In any case the provision of money on easy terms is an essential part of any housing scheme.

It will be necessary to carry on a propaganda of good common sense in building. We must forget all about the old cottages, except in so far as benefiting by their example of sound building. I suggest that floor boards spiked on to brickwork, and tarred, can never be made to look like half-timbering. Let us rather try all the beastliest raw materials and methods, and see if we can't knock out something typical of our own time. Let us start with real frank hideousness, as preferable to sham antiques, and, lastly, do let the working man himself have something to say on the subject.

But I must not be too gloomy, because, though the generality of speculating builders produce dull, uninteresting houses, they are not always ruined in so doing. Here is the tale of a Scot who came to London and marked down the provident City clerk as his especial pursuit. He built largely in several suburbs, and always near a railway line. The method employed was to approach the railway company, and enter into an agreement to build so many hundred houses if the company provided a station.

Land was bought at agricultural prices and regulation houses built on regulation plots; but the houses were quite well built, and, being standardised throughout, could be and were sold very cheaply and at little above cost. The pill concealed in the jam was a ground rent of about £7 per annum. The provident City clerk, moved by the desire to own his own house, and beguiled by easy methods of payment, did not realise that the capitalised value of the ground rent equalled a charge for the freehold of his plot at the rate of several thousand pounds per acre. It was of course perfectly legitimate business, according to modern methods, but in reality poor service to the community. To understand thoroughly how gloomy modern housing can be one should go to East Ham. One wonders what an Elizabethan would say coul but wander up and down its dull by-law streets, it is by methods like this that most of us are hou nowadays. When there were halfpenny newspa we were assured that it was progressive; our typ speculating builder usually acquires wealth position, and it is difficult to see how he can esc such a fate, because he deals in quantity, not qua and makes a lot of money in so doing. He successf imposes the necessity for his own maintenance, a first charge on the incomes of some hundreds, thousands, of ambitious City clerks.

You may say that this is an exaggeration of the s of affairs, and that East Ham is not typical; you refer to the Garden City movement, and the w which has been done by manufacturers, like the c tion of Port Sunlight. My reply is that the amoun the latter is so small as to be negligible when one c siders the vast mass of the ordinary bye-law build and that it is not produced by ordinary econom conditions. Also over both types there is the sa blight of a lowering of the standard of value, much of the Garden City type of building has suffe from being just as jerry-built if more picturesque t the work of the speculating builder.

I have tried to point out how in modern times c are always rising; how difficult it is to transfer la how expensive it is to provide the money for buildi and how on all sides there are charges which must added to the cost of production. On the other ha before the war the doctrine of cheapness made it nea impossible to get a fair price for good work, wh was not really desired. So between increasing c and decreasing prices one arrived at poor val Pretty came into use as an adjective.

This, again, sounds like wilful exaggeration, it is an undoubted fact that before the war the m effort of the business man was to conceal the fact t the commodities he sold were of little value. By ski advertisement and good salesmanship the public w persuaded to buy articles which automatically perhaps 50 per cent. in value as they were taken out the shop on to the pavement—they had beco second-hand.

Let me remind you of the fact that at the rec Red Cross sale at Christie's articles of modern ma facture were not desired, unless of precious me lending itself to melting down; you were especia asked to send objects of value, and to do this we thrown back on the antique. We have not yet star a gallery in South Kensington Museum for seco hand twentieth-century furniture, and if we did would make even a London shopkeeper blush, so have got to face the fact that our standard of val has in reality been deplorably lowered.

All this may not seem to have much to do w housing, and if we look on building as somethi divorced from everyday conditions, this is the case. we agree with the school of thought which thinks t all modern ills spring from bad housing, then all have to do is better building. If the reverse happ to be the case, and our bad building is only a reflect of miserable conditions and false standards, then problem is a grave one, because it means that bef we can get back to good houses we must alter whole conditions of modern life.

The war is already helping us in this direction, that it has given us a much more vivid appreciation value, and slowly but surely we are attacking privile We are losing our money sense and learning w really counts. The silly things are going, and necessaries we once wasted are now taken care ople at one time were content to walk about and k at England from the highroads and rail; they now digging it up and putting in potatoes instead. e first-line trenches have been taken.

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*Concluding portion of a paper read before the Berkhamsted Branch of the Workers' Educational Association. The first portion appeared in our issue of May 22.

I see in all this far more hope for housing than years legislation, because it is evident that the whole nditions of life are being altered, and in the direction the elimination of the parasitic institution or lividual. Once we can believe that money is only medium of exchange, and that the creation of real lue is all that counts, we shall have solved the using and many other questions.

We can now examine some of the remedies sug- sted for the housing problem. So far as legislation s been concerned with housing, the first Public ealth Act was passed in 1848, and this conferred wers on the different localities to elect Local Boards Health, and there was a General Board of Health London, corresponding to the present Local overnment Board, which did not come into being til 1871. The Public Health Act of 1872 provided the constitution of urban sanitary districts, which re more clearly defined by the Acts of 1875, 1888, d 1907. The Housing and Town Planning Act, 09 is in reality far more concerned with questions of blic health than those of town planning. By this I not mean that it can be regarded as other than a ry important step forward in that it urges the portance of making a plan for the development of a wn. The remarkable thing is that it was necessary have an Act of Parliament to make such a sugges- on, but that it was anyone who studies the velopment of Berkhamsted will readily admit. The y-out of our town should almost be the classic ample of what not to do.

The Act is further remarkable in that it states the nenities should be considered in town planning, but cannot be regarded as more than the expression of a pe that people will begin to take an interest in the bject. It contains no powers to make people town- an. Here in Berkhamsted I think some of you ished to prepare a scheme, with a result that the ajority became alarmed, and the matter had to be opped.

Then there are the people who do not worry about ans but go straight for detail—talk learnedly of the sition of the scullery copper, and remind you how at useful domestic engine generates steam in the me on washing days, and implore you to banish the pper. There is the parlour school, who want to evate the working man by giving him a sanctum for e family gods, and their sternly utilitarian rivals who y, "No," that parlours are never used, and being dicated to stuffy solitude, spell waste, and so eaken the moral fibre of the working man. There is e political school, which holds out hopes of cottages men who vote blue, black, or purple. "Small wners," "Small Holdings," "Three Acres and a ow," "The Big Loaf," "Back to the Land," are more miniscent of electioneering than work accomplished. the skilful hands of the politicians promises are eely made and used as narcotics, or a camouflage of eir own evil intentions.

And now that the work must be done, and 300,000 ttages built, what are the proposals? The latest ea is the standard plan. All those in authority el that somewhere or other there must be hidden a ock pattern plan of the ideal cottage, which once scovered, can be used as a sort of stencil plate, and pies rubbed off and supplied gratis, to all the thorities who want to build.

The Local Government Board recently approached e Royal Institute of British Architects, offering bstantial money prizes if they would conduct a ational Housing Competition for Cottage Plans. he country was divided up into areas, and certain nditions laid down as to type and accommodation. The Home Counties Area, in which we are situated, extended from Norfolk down to Sussex and Oxfordshire, across to Essex, and in this large area first and second prizes were given in each of the classes, of which there were four or five, so it only allowed a very few variations in which it was possible to study local conditions and materials. I have brought along with me reproductions of some of the winning designs, which have been published in THE ARCHITECTS' AND BUILDERS' JOURNAL, and the results are, on the whole, good, if the architects were to be allowed to carry out the work and do the best they could to make it a success. We should then have the satisfaction of knowing that the man who had made the design was controlling the erection of the building. It could be assumed that in this way in practice more attention would be given to local requirements, characteristics, and materials, than was possible in the hustle of the competition, and that progress would be made. We might expect a beneficial rivalry as between towns and counties, and we should certainly have been in a position to respond quickly to those altered conditions of our national life which must be an inevitable outcome of the war. For example, the conditions of the competition gave just the ordinary accommodation we have been used to for a labourer's cottage, whereas it is extremely probable that as more people are forced on to the land by the absolute necessity of raising foodstuffs, we shall need many cottages of the type suitable for small owners with a little dairy and so on attached. Or in the towns small houses might be arranged in connection with workshops, having power laid on, where a disabled soldier could carry on his trade.

But this is not the Government's idea at all. They purchase these competition designs outright, and the same are to be issued to local authorities as standard types, which means that some wayward Council in Herts may elect to build in Fletton bricks a design which was originated for stone in Oxfordshire. I think you will agree with me that all this is very hopeless. And the real solution is such a simple one. If the adverse conditions could be removed the building trade would so quickly respond.

THE PLATES.

National Housing Competition Designs.

WE reproduce in this issue the first-premiated designs in all four classes of the Northern Area of the R.I.B.A. National Housing Competitions. Space will not allow of extended comment upon the designs, but the attention of readers may again be directed to the excellent survey of the whole competition by Mr. C. H. B. Quennell, F.R.I.B.A., in our issue for May 8.

Piccadilly in the 'Forties.

Of London as it appeared in the early 'forties we have an admirable pictorial record in the portfolio of lithographs issued in 1842 by Thomas Shotter Boys. In the print shops we occasionally encounter stray examples of the series; but there were twenty-six in all, with historical and descriptive notes by Charles Ollier, in English and French. One of the best of the series—that of Piccadilly—is reproduced on the double-page supplement in this issue. Boys, who was born in London in 1803, and died in 1874, was trained first as an engraver; but afterwards, under the influence of Bonington, he devoted himself to painting, exhibiting at the Royal Academy for the first time in 1824. Later, he took up lithography, and achieved a very considerable success, more especially in the somewhat difficult art of rendering street perspectives at once architectural and pictorial.

INAUGURATION OF BUILDING TRADES PARLIAMENT.

ONE of the most important gatherings ever held in connection with the building industry was that which took place on Wednesday in the Central Hall, Westminster, the occasion being the inaugural meeting of the Industrial Council for the Building Industry, framed as the outcome of the Whitley Report. Sir David Shackleton, K.C.B., presided, and was supported by the President of the Local Government Board and the Ministers of Reconstruction and Labour. The following societies were represented: Employers: — Institute of Builders; the Confederation of National Associations of Building Trades Sub-Contractors, representing the plumbers, plasterers, painters, slaters, heating engineers, constructional engineers, and Electrical Contractors' Association: the South Wales Building Trades Employers' Federation; the South-Western Federation; the Northern Federation; the Midland Federation; Yorkshire Federation; North-Eastern Federation; Southern Counties Federation; Eastern Counties Federation; the London Master Builders and Aircraft Industries Association; the Scottish National Building Trades Federation and the Organising Committee of the Scottish Building Trades. Operatives:—Amalgamated Society of Carpenters and Joiners; General Union of Carpenters; Operative Bricklayers Society; Manchester Unity Operatives: National Operative House and Ship Painters; Operative Stonemasons; Woodcutting Machinists; Slaters and Tilers; Electrical Trades Union; United Operative Plumbers; National Association of Operative Plasterers; United Builders' Labourers; National Association of Builders Labourers; Northern Union General Workers (Building Trade Section); United General Labourers; Navvies and Builders' Labourers' Union; Heating and Domestic Engineers; Scottish Painters' Society; Amalgamated Slaters of Scotland; United Operative Plumbers' Association of Scotland; Scottish National Operative Plasterers' Federal Union; and the United Operative Masons' Association of Scotland. Messrs. A. G. White (Employers' Federation) and W. Bradshaw (Operatives) acted as secretaries.

Mr. Hayes Fisher Explains.

Mr. W. Hayes Fisher (President of the Local Government Board) dealt with the recommendations of the Whitley Report that it was vitally necessary that after the war there should be improved relationship between employer and employed, and that to this end there should be an organisation established in each trade to take a regular and sympathetic interest in all that concerned the welfare of the particular industry. Whilst the exact functions of these joint committees had not yet been defined, it had been indicated that they would be asked to consider various matters. One was the regularisation of wages, and another the various improvements which might be made in materials, in fittings, in methods, and so on. The Ministry of Reconstruction had appointed a Committee to deal with the whole question of building materials after the war, including the subject of standardisation, and no doubt they would be asked to give an opinion on that. There was also the subject of unemployment, which, however, he did not think would be a trouble so far as the building trade was concerned for some years to come. The question the Minister of Labour would have to consider was rather that of priority of labour, for there was not only the tremendous shortage of working-class houses to make up but many other classes of buildings would be required. The Minister of Labour had announced that it was desired that this Joint Industrial Council should become the Parliament of Building. The Government desired it to be understood that the Councils would be recognised as the official standing consultative committees to the Government, on all future questions affecting the industries which they represented, and that they would be the normal channel through which the opinion and experience of an industry would be sought on all questions with which the industry was concerned. As President of the Local Government Board it was his duty to look to the housing needs of the country, and he would be glad to have their advice on many of the problems which confronted him at the present moment. Mr. Hayes Fisher dwelt at some length on the Government proposals for assisting and encouraging local authorities to build houses and said he would be bitterly disappointed if advantage was not taken of the offer. He added that he had not put aside the idea of adopting some plan for assisting public utility companies and private builders, but it would be obvious to all that it was difficult to propound a plan acceptable to the House of Commons which would involve a subsidy to those who were naturally desirous of making a profit.

Dr. Addison on Control.

Dr. Addison (Minister of Reconstruction) pointed out that the first great difficulty in regard to restarting industries after the war was the supply of raw materials. Especially with regard to timber was it necessary to take early steps to get the necessary supplies. They had advanced in the work of surveying the brickyards of the country and making arrangements to ensure that they should be started promptly when the time arrived. A Committee had also been appointed to deal with the question of finance, although he had reason to believe there would not be a great difficulty in this regard in connection with the building industry. There was also the question of priority. Nowadays it was popular to say they were tired of Government control, but the rapidity with which they would be able to dispense with such control rested largely with themselves. For some time after the war, owing to shortage of tonnage and other considerations, it was inevitable that there would be difficulties in the way of getting supplies, and the Ministry was desirous of receiving the advice and assistance of trade bodies in determining the order of importance which must be attached to the requirements of different trades for raw materials and machinery. He gathered from the Engineering (New Industries) Committee that the building trade, amongst others, might possibly be capable of new developments, and that in some branches of the trade, particularly in connection with fittings, German and Austrian enterprise took a very considerable share before the war. Proposals had been put forward for meeting this deficiency and for starting various industries which would give employment to those who had been drawn into industry during the war and would be displaced at the conclusion c hostilities. There were many directior in which the Ministry of Reconstructio would welcome the assistance of the Con mittee when it was formed.

Mr. G. H. Roberts on Joint Committee

The Right Hon. G. H. Roberts (Ministe of Labour) also expressed his confidenc that the Joint Committee would be abl to render great assistance to his depar ment. He emphasised the fact that, whil the Government did not desire to impos these Committees on any section of th community, yet they did most strongl commend them. The Whitley Report wa not an Act of Parliament, but it outline a scheme capable of almost indefinit modification and adaptable to particula circumstances. The one essential thin was that there should be a central counc fully representative of the particular trad electing it which could advise the Goverr ment on matters, either legislative c administrative. Whilst it had been urge that there were sections and distric whose circumstances made it impossibl for them to come in with the whole ir dustry, yet he was confident, howeve diverse the sections might be, they mus have some points of contact, for th scheme suggested was elastic enough t provide for the peculiarities of any pa ticular district or any particular trade i an industry. He was going to ask th various localities to undertake the large possible responsibilities, consistently, c course, with the retention of Governmer control. They believed there was a immense amount of talent and experienc in the various districts which was not full utilised, and they wanted to organise an utilise it. The Scottish builders felt tha their conditions were such that they coul not be brought into harmony with national body, but he thought there wer many points which must be common t the trade as a whole. They had endeavoured to fashion a constitution whic would allow all sections to work with th rest of the country and contribute to th common stock of the whole industry. H was glad the building industry had deter mined to establish a central body first and out of that national body district an other sections could be formed. Th Ministry of Labour would be charged wit a heavy responsibility with regard t demobilisation, and however wisely the planned they were doomed to failur unless they secured the goodwill an wholehearted co-operation of the me within the industries. The Ministr required these industrial councils t advise them on various points, so tha when men were discharged they woul have a prospect of employment under suc conditions that would give a guarante that they would gain a decent livelihoo for themselves and those dependent o them. From what Mr. Hayes Fisher ha said he felt that there would not be muc difficulty about that in the building trade There was also the question of the inter ruption of apprenticeship which it woul be disastrous for a Government depart ment to attempt to deal with, but whic the industry itself could deal with satis factorily.

On the motion of Mr. H. Willcock seconded by Mr. A. Gould, a hearty vot of thanks was passed to the three Ministers for their attendance and addresses.

At the afternoon sitting voting too

ace for the Chairman, and Mr. J. Storrs talybridge) was elected.

In thanking the gathering for the great mpliment paid him, Mr. Storrs said he ok it that it was due to his connection th the Conciliation Board. He regretted say that within the last few months the oard was unable to come to a decision on matter for the first time, and he believed at was due to the way in which the overnment had treated the building trade nce the commencement of the war. He ncerely hoped that in the future the overnment would invite people in the ade to give advice and that it would be ted upon and not altogether ignored. the attitude of the Government in the ture was to be the same as that taken in e past, then there was no necessity for industrial Parliament, and he would t waste his time in working for the trade d the community to be ignored by ople who knew nothing whatever about e trade and dictated to those who did now.

Mr. A. Cameron (Carpenters and iners' Society) was elected Vice-Chair- an; Mr. J. Batchelor (Operative Brick- vers Society), Treasurer; and Messrs. . G. White and W. Bradshaw as Secre- ries.

The committee then sat in private to con- der the subject of the resettlement of bour after the war.

Resettlement Committee Elected.

At the resumed meeting on Thursday, r. James Storrs in the chair, the first usiness was the reception of the report of e committee appointed on Wednesday the appointment of a Resettlement ommittee.

Mr. A. G. White (joint secretary) read e report of this committee, which re- mmended that one committee only ould be appointed under the title of the dministrative Committee to consist of n employers and ten operatives, plus the fficers ex officio, and that to make the umber of officers equally representative f both sides joint treasurers be appointed -Mr. E. J. Brown to represent the mployers. They further recommended at the allocation of the employers' repre- entation on the committee be as follows: ational Federation of Building Trades mployers, 4; Institute of Builders, 1; ational Confederation of Sub-Con- actors, 3; Scotland, 2. For the opera- ves they recommended 8 members from e National Federation of Building rades Operatives, and Scotland 2.

After a very considerable discussion, the eeting resolved to elect the twenty mem- ers of the committee by vote and the llowing were duly declared elected: peratives, T. Barron (Amalgamated ociety of Carpenters and Joiners), A. cDougall (Operative Bricklayers ociety), J. H. Edwinstone (United Opera- ve Plumbers' Society of Scotland), A. ardner (Scottish Painters' Society), W. illiams (Operative Stonemasons), R. ilson (Operative Slaters' Society), T. tley (National Association of Operative Plasterers), W. Cross (Amalgamated laters of Scotland), P. Flanaghan National Association of Builders' abourers), and H. Piper (National Opera- ive House and Ship Painters). The ten mployers' representatives chosen were: . D. Cox (President of the Confederation f Sub-Contractors), S. Easten, J.P. (Nor- hern Counties Federation of Building rades Employers), T. Foster (North- estern Federation), E. J. Brown (Insti- ute of Builders), E. Bruce and T. Graham Scottish Building Trades Employers' Federation), S. Smethurst (North-Western Federation), H. Willcock (President of the National Federation of Building Trades Employers), J. Cantrill (National Association of Master Painters), and J. Allinson (Institute of Plumbers).

It was decided that the committee should prepare a report to bring before the next meeting of the Council, to be held on August 1 at Birmingham.

As a temporary measure, it was agreed that each operative society represented on the Council should contribute £10 towards meeting the preliminary expenses; a like sum, whatever it amounts to, to be contributed by the employers.

In closing the proceedings, Mr. T. Foster, in a lengthy speech, appealed to the members of the Council to approach its work in the spirit of idealists who could see something beyond mere money-making in labour and employment. He claimed that without the Whitley Report they would have a Builders' National Parliament sitting before this, as the outcome of proposals which issued from the operatives in 1916, which proposals were discussed at a joint meeting of operatives and employers in June of last year. In a memorandum which was issued with the proposals for a Builders' Industrial Parliament there was one sentence which contained the crux of the whole matter. It said: "Industrial peace must come, not as a result of the balance of power, with a supreme Court of Appeal in the background; it must arise as the inevitable by-product of mutual confidence, real justice and constructive goodwill." He was satisfied that if they could engender those feelings of real justice, mutual confidence, and constructive goodwill among both sections of the industry, they need not trouble about the rest.

Mr. W. Bradshaw (Joint Secretary), speaking for the operatives, welcomed the spirit of Mr. Foster's remarks, and said that he had a strong hope that ultimately, if not immediately, the Industrial Council would tend to foster that communal spirit which they all regarded as essential to the success of the building industry in the future.

Replying to a vote of thanks for presiding, Mr. Storrs expressed the hope that those inaugural proceedings would result in something that the building trade would be very proud of in the future.

BUILDERS' MATERIALS FOR LATIN AMERICA.

The export returns of builders' goods from this country to the Latin American States for some years before the war caused much dissatisfaction in the minds of those engaged in their manufacture. There will be excellent prospects for such materials when peace comes (says "The British and Latin American Trade Gazette"). The damage done by earthquake in Guatemala and El Salvador will need to be made good, and the materials for doing this will have to come for the most part from the United Kingdom or the United States. In these two central American Republics and in other States there is a special opening for the requisites for erecting earthquake-proof buildings. What has been carried out in Messina and San Francisco will have to be done in those parts of Latin America that are similarly affected. This will mean many shiploads of Portland cement and iron and steel reinforcement, to say nothing of the other kinds of builders' goods required.

With the admission into Guatemala of all building materials free of duty, which the President has lately decreed, there is an open market, but it needs seizing quickly. The new public works to be carried out in the city of Bulnes, Chile, and the expansion of highway construction which is being taken up as a national policy in Venezuela, will require builders' materials and tools of one sort or another. The great railway extensions contemplated in several States means much more than the necessity for providing merely steel rails.

The chief concern will be, of course, with all that has to do with concrete construction, because it is to this form of building that the countries most liable to earth shocks must look for endurance and security. The Germans will undoubtedly be keen competitors again, not only for cement, but also for reinforcing bars, tie roads, expanded metal, etc. Large quantities will be required of the latter material for bungalow and house-building, because a very cheap and substantial house can be put up with its aid. The newest and most rapid forms of concrete-mixing machines are also in request, but in these the keenest competition hitherto has come from the United States, and that in the form of patented improvements tending to turn out large quantities of work in quicker time. With these, expense in first cost is not so important as is the aid they give in doing big jobs. Good machines, for use by hand or power, are made in the United Kingdom, and these should find a market in many quarters of Latin America.

Telegraph and fence posts will be wanted in increasing numbers, and where ants are troublesome there is nothing to equal those made of concrete.

Another new line for our manufacturers is the steel ceiling. This is not much known in Great Britain, but in the United States it is found everywhere. It is fireproof, clean, and easy to handle. It is made in sheets generally about 8 ft. by 2 ft. and being unaffected by vibration is the thing that is wanted in an earthquake zone. It is also not liable to damage by leakages of water, and defies the ant. Most of it has come to this country with coves and cornices ready for fixing, and if we could only make and supply it in such handy form the market would be assured.

Wall board is another new form of building material that has come to stay. With concrete, expanded metal, and wall board, it is possible to erect decent dwellings for a very low sum, and it will be to these that the builder in Latin America will look for housing purposes.

English-made tanks are known and respected the world over, but they have not gone into Latin America in the past quite so largely as they ought to have done. It is no use sending galvanised cisterns to districts where the water is soft or acid. Some form of reinforced concrete is the best for this, and it may be as well if our manufacturers would put their minds to thinking out a light form of reinforced-concrete tank which could be exported in pieces, say bottom and four sides. These, being bolted together with screws and nuts, could be lined at the corners with cement, and then have a face of Pudloed cement run round and made quite secure. To the man who can think this out best there is the reward of a sure and waiting market. It is largely a matter of weight and freight.

ARCHITECTS UNDER THE NEW MILITARY SERVICE ACT.

At the suggestion of the Architects' War Committee, the Council of the R.I.B.A. recently approached Sir Auckland Geddes and arranged for a deputation to wait on him on May 16. The deputation consisted of the President R.I.B.A., Sir Aston Webb, Mr. E. Guy Dawber, Mr. Arthur Keen, Hon. Secretary of the War Committee, Mr. John B. Gass, representing the Manchester district, and Mr. S. Perkins Pick, President of the Leicester Society of Architects. In the unavoidable absence of Sir Auckland Geddes, the deputation was received by Colonel Scovell, with whom were Colonel Hedley, Major Sim, Captain Lowe, Captain Duncan, and other officers of the Army, the Navy, and the Air Force.

Mr. Hare, in introducing the deputation, pointed out that their purpose was to secure that architects now to be called up should be placed in positions where their technical knowledge and experience should be utilised. Architects had no desire to avoid their full share of military service; out of some 4,000 on the Institute books between ten and fifteen hundred had already been serving and over a hundred had lost their lives. This was the second deputation of architects to the Ministry of National Service, the former one, which dealt with civil employment for architects in connection with the war, having had a most cordial reception by Mr. Neville Chamberlain. Many of the men referred to at the former interview were now, in view of the raising of the age from forty-one to fifty-one, placed in an entirely different position in relation to the Services, but he wished to make it clear that they possessed skill and experience that would be of far more value than any physical or clerical work that they could do. They were men of business and affairs, accustomed to responsibility and the direction of important undertakings requiring resource and initiative. In particular they were expert draughtsmen, used to maps, plans, and drawings of all kinds, thoroughly well acquainted with the materials and processes of construction, many of them possessing good knowledge of land surveying and accustomed to making surveys and reports on property. They would readily adapt themselves to any constructional work that might be needed in the Army or to such matters as arranging for billeting or hospital premises. The main question was how were they to be drafted into positions where the country would have the benefit of the best service that they could render. At present commissions were limited to men of under thirty-five years of age; it was important that this limit should be raised.

Mr. Gass stated that he represented a very large number of architects practising in manufacturing districts and many of them specialising in factories and other buildings connected with industrial undertakings. He showed that time, energy, and material had been wasted to a most terrible extent in connection with Government work for want of just the experience and organising ability that architects such as these could have brought to the work. He handed Colonel Scovell fully authenticated written particulars of the gross mismanagement of building works carried out for one or other of the Services in his district, involving serious loss and waste and keeping large numbers of men practically unemployed at a time when the work that they might have been doing elsewhere was urgently needed. All this might have been avoided if men already in the Army had been put into positions of control for which their experience fitted them, but he stated that of twenty-four men who had gone from his own office only four, or, possibly, at the present moment seven, had been employed in technical work for which they were well fitted. Architects possessed specialised attainments which should be made use of just as those of doctors and dentists were, and the methods of selection used in the case of these professions should be applied in the architect's profession.

Mr. Perkins Pick said that in all matters of building construction undertaken by the Government in this country the local knowledge possessed by architects might be of the greatest value in increasing efficiency and reducing expenditure; the organisations of the provincial societies gave the opportunity for making full use of this knowledge of local conditions and methods. He fully agreed with Mr. Gass as to the waste and mismanagement of building work carried out for departments under the Government. He hoped that when demobilisation began the architects would be among the first released, so that plans and preliminary work could be completed in time for works to be started as soon as the various craftsmen were available.

Sir Aston Webb said he was sensible of the courtesy and patience with which their views were being listened to, and they were really anxious to present their case reasonably and temperately. Speaking from his own immediate experience, there were but three men left of his own staff, all three of them nearly fifty years old and obviously useless as Tommies, but any of them could do most valuable work if they were put into the right place. The whole matter seemed to resolve itself into a question of the best means that could be used for getting each man into the place best suited for him.

Mr. Arthur Keen showed one of the War Committee's War Service cards, and stated that they were authorised by the War Office and had proved most useful in helping men already in the Army to get commissions or transfers. He suggested that similar cards, authorised by the Ministry, might be given to architects and the particulars on them entered by the recruiting officer on the man's attestation form so that they would not be lost sight of. He stated that in his capacity as secretary of the Architects' War Committee he had met with many cases of men of outstanding ability being employed in the Army on work for which they had no particular qualifications. On the other hand, he knew of architects who had shown the greatest resource and enterprise in carrying out building work under difficult conditions, using shell boxes and petrol tins in the construction of hospitals and mess rooms, and making drains out of disinfectant tins. He would be happy to do what he could in securing information about the men affected by the raising of the age limit.

Colonel Scovell, in reply, said that Sir Auckland Geddes himself was most anxious to get men put into their right niches. He was concerned with finding men for the War Office, the Admiralty, and the Air Force, and there was no doubt that in the next two or three months great raids on the man-power of the country would be made. He felt that long views of requirement were needed; but, on the other hand, the urgent needs of the moment had to be met, and it was clear that at the present time infantry were chiefly wanted and that technical branches of the Services might have to go short.

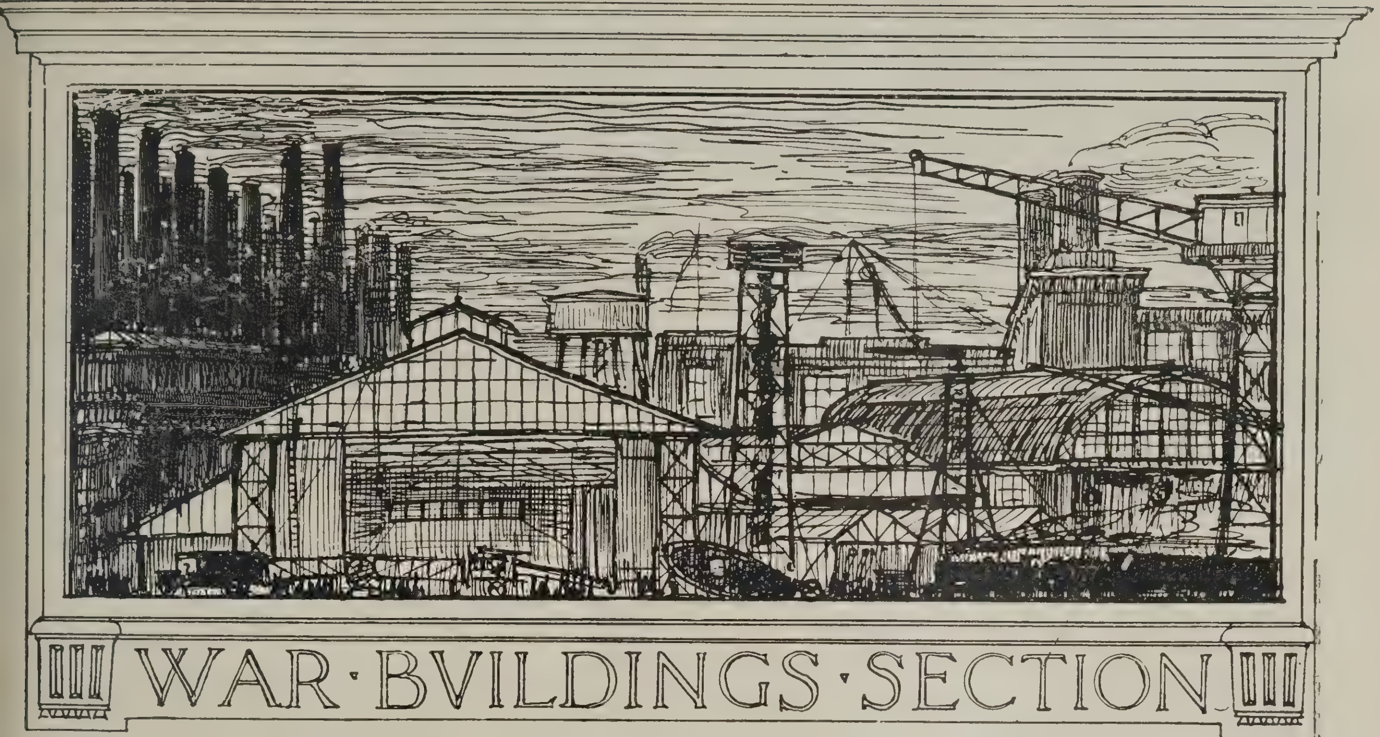
Captain Lowe said that he would shortly be asking the Ministry of National Service to supply older men to take the place of young men fit for Army service.

Colonel Scovell remarked that there should be no difficulty in placing most of the architects who would be called up—in Colonel Hedley's department, for instance, in which surveys and maps were made; in the Department of Fortifications and Works, in aerodrome construction, etc.; but this was not the time to discuss details. He was fully in accord with the wishes expressed by the deputation, and he thought he had better meet the Hon. Secretary of the War Committee at an early date in order to draft a form on which architects could set out their particular qualifications before enlisting, and at the same time other details could be considered. At the present time men of forty-three, forty-four, and forty-five were wanted, but there was no reason why older men should not be received for suitable work before they were actually called up for service.

Mr. Hare having expressed the acknowledgments of the deputation for the hearing they had received, the interview terminated.

EMPLOYERS AND THE TRADE BOARDS BILL.

The Employers' Parliamentary Council have issued a Memorandum on the Trade Boards Bill which gives powers to the Minister of Labour to establish wages boards for the fixing compulsorily of rates of wages which employers may legally pay. The Bill is an extension of the Trade Boards Act (1909), which is restricted to what were called "sweated industries," and is regarded as an attempt to fix permanently the inflated wages and artificial conditions of employment prevailing during the war. Under the principal Act, extensions could be made only by Provisional Order confirmed by Parliament, thus securing to all opponents the right of being fully heard. The present Bill transfers powers from the Board of Trade to an individual Minister, practically removes the safeguards given by the principal Act, deprives opponents of the right to be heard by Parliament against an Order, and places them at the mercy of a State Department without any power of resistance. The Employers' Parliamentary Council are not aware of any reason for departure from the present course of procedure, and therefore urge the retention of the safeguards now existing, and submit that such a Bill should not be promoted in anticipation of the proceedings of the Joint Standing Industrial Councils to be established in the several industries, among the essential functions of which will be the fixing of rates of wages to correspond with the demand for "a higher standard of comfort generally"; and they further submit that to give general powers to a State Department to trespass upon the legitimate province of these bodies, which would possess a practical knowledge of the facts and circumstances relating to the industries they represent, is unwise and harmful, and likely to be strongly resented by the Joint Councils, who will naturally be jealous of their own authority and powers.



ORGANIC CHEMISTRY IN RELATION TO INDUSTRY.[*]

BY DR. M. O. FORSTER, F.R.S.

F there is one lesson which, more than any other, has been taught by the iscipline of war, it is the need of being elf-contained. In regard to food supply ne U-boats have shown themselves to be ne most energetic missionaries of this ospel, and do not require assistance in neir adventure. Board of Trade statistics ill show to what extent the textile inustry, except in regard to wool and jute, dependent upon foreign countries for its otton, hemp, silk, flax, and wood-pulp. ll these raw materials resemble one nother in being almost literally raw aterials—that is to say, natural products pon which but little labour has been exended besides that required for cultivaon and collection, followed by transport manufacturing centres; but the textile dustry depends also upon a raw material hich is to this extent peculiar, that it cludes numerous products of highly illed workmanship, arising from an uxiliary industry which is more compliated than any other. You will immeiately recognise this raw material as comrising the vast range of synthetic dyes, nd it is because of this exceptional relaon to the textile industry that aniline-olour manufacure has come to be called a ey-industry, controlling, as it does, an dustrial output approximating in value one hundred times its own.

Our Educational Deficiencies.

It must be remembered that aniline-olour manufacture is only one branch—lthough a very important one—of the rganic chemical industry. The producon of explosives, illuminating and fuel ils, natural and artificial remedies for isease, photographic materials, margane, soap, rubber, perfumes, artificial lk, and celluloid, whether inflammable or non-inflammable, is intimately connected with the principles and practice of organic chemistry, whilst the production of spirituous liquors, dairy produce, meat extracts and cereal foods has undergone marked improvement in consequence of applying this branch of knowledge to its control. The general public, however, so far from realising their debt to organic chemistry, would be puzzled to find a definition for it, and this they owe to the tardiness with which even the highest educational authorities have recognised it as a distinct branch of science. Until quite recently the colleges and universities have placed organic chemistry in a secondary position, marked by leaving instruction in the subject to a subordinate member of the staff. Happily this deficiency is gradually being made good. Manchester, indeed, has had a professor of organic chemistry since the days of Schorlemmer, but a similar post was not established at University College, London, until 1902. The example was followed by Leeds in 1904, Oxford in 1913, the Imperial College of Science and Technology in 1914, and Liverpool University in 1915. The Universities of Aberdeen, Belfast, Birmingham, Bristol, Dublin, Durham, Edinburgh, Glasgow, St. Andrews, and Sheffield still possess only one professor of chemistry apiece, however, and it is left to chance, assisted by the appointments committee of the respective body, to determine whether a new occupant of the chair displays organic or inorganic proclivities.

The Position in Germany.

When contrasted with the corresponding situation in Germany, this record is one which goes far towards explaining our admitted inferiority in this branch of science. "Minerva" for 1913-14 discloses the fact that the twenty-one German universities were provided with 108 professors of chemistry, an additional forty-nine representing the senior chemical staff of the nine technical high schools. In Great Britain and Ireland there were eighteen universities with thirty-five professors of chemistry, nine further educational institutions having amongst them twelve such professors, making a total of forty-seven, compared with the German total of 157. In proportion to the difference in the population of the two countries, it might be stated that Germany has only twice as many professors of the subject as are to be found here, but this would give a false impression of the facts. It is less illusory to consider the position from another standpoint, namely, that a population half as large again as that of the United Kingdom has been influenced by the instruction and inspiration derived from a body of teachers three times the number of our own; from this it follows that, even assuming equality of receptivity as between the students, and of capacity as regards the teachers, the output of German chemical talent may be estimated at between four and five times that of this country per annum. Remembering that this disproportionate effort has been operating during a period of many years, we cannot be astonished that the present relative position of the two countries in the matter of chemical achievement has been reached.

A modern laboratory needs to be equipped with an immense variety of apparatus and materials, the use of which demands patience and ingenuity if waste is to be avoided and security maintained. The adaptation of existing apparatus to fresh requirements and the designing of novel implements to overcome new obstacles often call into play the inventive faculty, and gradually develop in the chemical practitioner a craftsmanship peculiar to his art. In this connection it is noteworthy that chemistry, although a branch of science, resembles the other branches, excepting mathematics, in retaining many characteristics of an art.

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[*] Extracts from a paper read before the Royal ciety of Arts on May 29.

Preparing for the Future.

It is one of the many regrettable features of human life that nothing approaching full advantage can be taken of the whole sum of human experience. Up to a certain point, however, the mistakes of one group of people can be used as danger signals or signposts for a succeeding one, and although the war, when viewed as a calamity which has visited this generation, is an incalculable horror, its lessons and its discipline, if properly read and assimilated, may be turned to unceasing benefit by succeeding generations. It is the duty of those among us who may survive this visitation, or who, by the gallantry and self-sacrifice of our younger fellow-countrymen and allies, have been permitted to follow our respective callings in relative peace and comfort, to give our minds whole-heartedly to the task of so focussing these lessons that the benefit obtainable from them may be secured to our successors.

Searching, then, for a fundamental principle which would appear to explain our shortcomings in the past, we find that the great weakness of our national method has been, speaking broadly, neglect to study the inner qualities of the materials to be manipulated, both physical and psychological. The British engineering and textile industries have gained their foremost position amongst the great undertakings of the world by the outstanding skill of the workers engaged therein, supported by the daring and enterprise of the controlling heads. These qualifications, however admirable in themselves, will not alone enable us to maintain our position in the future. They must be fortified by an intimate knowledge of the chemical and metallurgical properties of the raw material, because it is only by such knowledge that crude products can be utilised with the finest and most enduring results, and their applications extended to ultimate possibilities. In making this claim I am not suggesting that everyone engaged in the textile industry should be a professional chemist or that engineers should be trained metallurgists. That is neither necessary nor desirable; but it is desirable that the practitioners of these two industries should have been provided with a bare outline of the respective branches of science underlying their occupation, and it is necessary that the directive heads should have access to highly trained chemists and metallurgists for frequent consultation.

From University to Factory.

Reluctance to make use of college-trained men has been partly due to the discovery by some employers that a college training is incomplete and one-sided, but reflection should show that this is quite inevitable within the limits of time by which the average student is fettered. It is not impossible to impart the kind of knowledge which can immediately be utilised to improve any but the worst works' processes, because an interval must elapse before a graduate can adjust his mind to the new environment. The factory differs fundamentally from the university in several aspects, important among which is the condition that, whilst the chief aim of the university is to impart, classify, and extend knowledge, often without much regard for expense, the principal purpose of the factory is to apply it as profitably as possible. Due allowance for this basic distinction has not been made by employers in the past, with a consequence that they have experienced disappointment and shown impatience with the human material provided by the colleges.

I do not pretend that the faults have lain on one side only. It has been claimed by manufacturers that the college graduate is too academic to be of practical value, and that professors are remote beings who float in an attenuated medium of their own hypotheses, ignoring the plain facts and requirements of industrial operations. In support of this contention illustrations could easily be quoted from public knowledge, but, on the other hand, it is not reasonable to expect men whose principal work lies in one field, namely, the extension and distribution of knowledge for its own sake, gracefully and authoritatively to exert themselves with equal success in surroundings novel and uncharted. Moreover, it should be remembered by business men that the professorial attitude, often regarded by them as dictatorial and overbearing, arises largely from the nature of the professorial calling, namely, imparting knowledge to comparative beginners in their subject. A man whose chief activities are engaged in the daily transference of his own information to the less mature minds of the students in his class must be something of a superman if his mental attitude is not affected thereby, and this factor, associated with the habit of untrammelled and enthusiastic discussion of scientific problems with his fellow-investigators, may go far to explain that peculiar state of mind to which the business man takes exception, and which he sometimes labels intellectual arrogance.

Educational Changes Necessary.

Very radical alterations need to be made in our system of education, which should be directed primarily towards giving every boy and girl an opportunity to reveal any natural gift which may lie hidden, and in the case of those who possess distinct mental aptitude, launching them on the road to develop it as fully as possible. It is probably true that genius will always come to light in spite of the most discouraging circumstances, but there is very little genius in the world compared with the huge aggregate of moderate capability which, like the mineral resources of an imperfecly explored country, has not yet been brought to the surface. To paraphrase a homely proverb, we must take care of the talents and the genius will take care of itself.

Had the doctrine of equal opportunity as between classics and science been pursued in the past, this generation of Englishmen would now be reaping two great benefits. In the first place, the number of trained scientific workers in this country would have been much larger; and, secondly, the general public, not actively engaged in the study of natural science, would have been much more accessible to the possibilities of scientific discovery. At present there is no perspective in such matters.

Nearly three years ago I ventured to prophecy that American progress in the field would be more rapid than our own, and a review of the development of this industry across the Atlantic has justified the forecast. The basis of their advance is to be found in the great scale on which essential intermediate products are being manufactured, and in the moral support which has been given by their Government in the shape of a tariff. It has not been found necessary for the United States Government to accord financial assistance to the dye-makers, because the promised defence against "dumping" and "all-line forcing" has appeared adequate to justify the venture of private capital, which has been amply forthcoming. It would appear to follow that in this country, if the State is not willing to give the fiscal guarantee it must find the money.

Hope for the Future.

Since these words were written a declaration of Government policy has been made in the House of Commons by the President of the Board of Trade (May 15 1918). The following words are quoted from the Hansard report of his address.

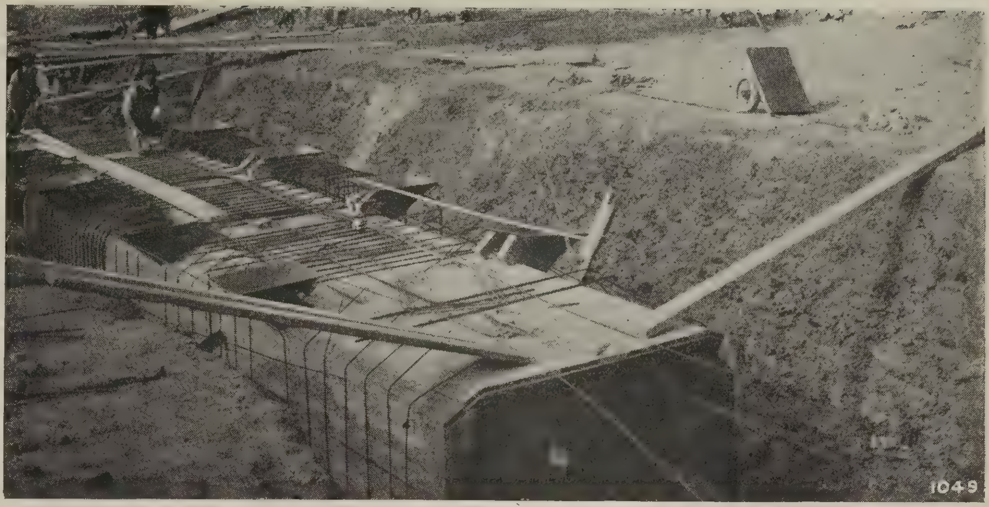
"In the first place, we are proposing where a manufacturer of dyes will undertake the manufacture of special dyes, and where he is not in a position to secure the necessary money to provide for extensions to building and plant, to make a loan at a fixed rate of interest, in no case being less than 5 per cent. It is also proposed to do as is done by the Ministry of Munitions in many thousands of cases. Where extensions of plant and buildings are necessary immediately, and where there is difficulty owing to the excessive costs of making these extensions, the Government will make some provision to meet the cost of these extensions, so that they may be immediately dealt with, and thus afford the additional facility that is required for the manufacture of these special dyes. It is also proposed to make certain grants in respect of research work. Those who have a knowledge of this industry realise the enormous amount of research work associated with the manufacture itself. There is a further proposal, and that is that, in order to safeguard this particular industry against the great efforts which these great German dye-making firms are certain to make after the war to destroy all we have accomplished through the war, and to make this industry again subservient to Germany, we will adopt a course . . . that importation of all foreign dyestuffs shall be controlled by a system of licences for a period of not less than ten years after the war . . ."

For all those who have laboured in bringing to the attention of their fellow countrymen the vital importance of chemical study, there are hope and inspiration to be derived from this pronouncement.

THE RECONSTRUCTION OF TOWNS.

A paper on "The Reconstruction of Towns" was given by Mr. W. T. Lancashire, the Leeds city engineer, at the weekly gathering of the Leeds Rotary Club at the Grand Central Hotel.

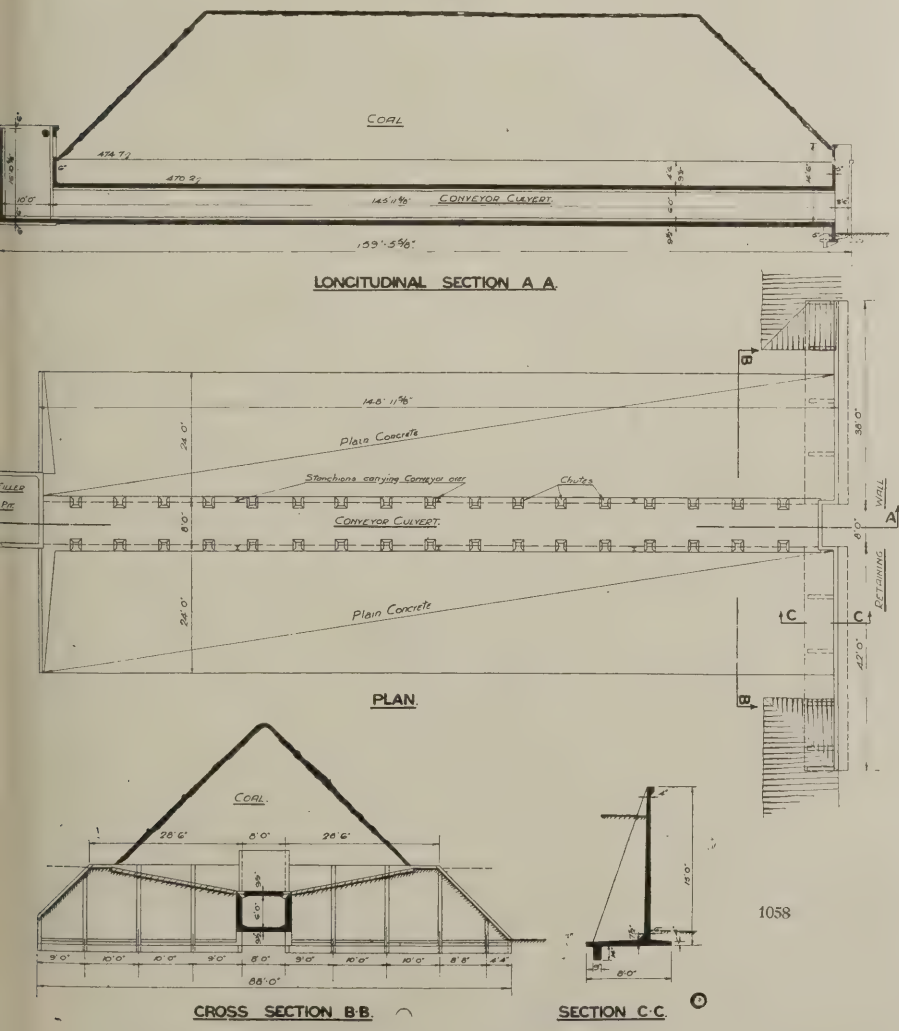
Mr. Lancashire, in referring to the lack in the past of town-planning, said that local authorities had not been at fault as much as Parliament, which had not equipped them with sufficient powers. The amount of public money spent by local authorities in remedying the mistakes and want of foresight and planning in the past had been enormous. Leeds had done more in the direction of street widening and improvements in proportion to its size than any other town. During the last fifty years thirty-nine miles of street widenings and improvements and new roads and streets had been carried out, excluding new streets and widenings in connection with



CULVERT FOR COAL STORE, WALSALL.

ondemned areas; the expenditure n these works having amounted to millions of money, and the sinkg fund and interest were responble for rather more than a shilling ite. The cost of acquiring the ondemned areas and the subseuent expenditure on them mounted to date to about £850,000, nd the annual cost to the city at e present time represented about l. on the rates, and the expendiire was not complete. The sale f land must be taken into conderation as a credit, but the net ost to the city on final completion ould be very heavy. When one condered that the work of street wideng and the rebuilding of old areas ıvolved a rate of 1s. 4d. in the ound, most of which would connue to be a charge on the commuity for many years, one was bound recognise that further schemes of is description could not be largely idulged in for some years to come nless the process was gradual. Birmingam, from which a deputation recently sited Leeds, had a big town-planning cheme in hand, and the chairman of the ommittee, writing after the visit, said it as a real surprise to find that Leeds had ade so much progress in street improveents and in this respect was so far ahead f Birmingham. He had told his Council iat in Leeds there were better streets than irmingham would have for fifty years.

The location of new main and secondary arterial routes and the widening of old ones was necessarily one of the chief considerations of town planning. Important arterial roads should be at least 80 ft. wide to allow of a double line of tramways, space for two lines of vehicular traffic on each side, and footpaths of 15 ft. in width to cover the requirements of pipes and cables, and a line of trees on each footpath. Ex-Alderman Lupton, in a recent pamphlet, had urged that where new and important thoroughfares were to be made or widened the width should be 150 ft. to allow of four lines of tramways, two on the surface and two in an open duct below the level of the roadways. If Leeds were to become a larger city, necessitating very quick transit, this would admirably meet future needs and save the large cost of construction that had to be faced in London and many Continental and American cities. In order to relieve the centres of towns of traffic several cities had designed wide ring roads, linking up the main radial routes. These ring roads would in addition open up large areas of land otherwise almost inaccessible, and if made wide enough would furnish a means of rapid transit in the same way as with the radial routes. Manifestly it was infinitely better and cheaper to design correctly at first than to have to resort ultimately to expensive reconstruction.



COAL STORE FOR THE WALSALL TOWN ELECTRIC STATION.

A REINFORCED CONCRETE COAL STORE.

The coal store shown in the accompanying illustrations has been built for supplying the boilers of the Walsall Electric Power Station. It is formed with plain concrete slabs resting on the ground and sloping down to a reinforced-concrete culvert 146 ft. long by 8 ft. wide by 6 ft. high running down the centre.

The earth supporting the plain concrete slabs is held at one end by a retaining wall 7 ft. 9 in. high with counterforts at intervals. The natural ground level at the other end being higher than the floor of the coal store, it is retained by a small cantilever type retaining wall. At this end there is also a filling pit 10 ft. by 12 ft. 6 in. by 17 ft. 5 in. deep.

The coal is taken from barges in the canal, which runs parallel with the store, by a crane and is deposited into a receiving hopper over the filler pit, weighed in an automatic weigher, and taken up by a conveyer and distributed over the coal store. When the coal is required for the boilers it runs out through the chutes in the culvert, and is taken by a conveyer into the boiler house.

The architect for the work was Mr. Bruce Dawson, F.R.I.B.A., and the contractors, Messrs. Kendrick and Son. The reinforcement was supplied by Messrs. The Indented Bar and Concrete Engineering Co., Ltd., of Westminster.

ENQUIRIES ANSWERED.

Approximate Cost of a Theatre.

ARCHITECT writes: "Could you give me the approximate cost of a theatre, say, in 1913—that is, the building without the site, up to date, fireproof, but with no marble decorations? Please state cost in lump sum or foot cube, also the cost of electric lighting installation fittings separately."

—The cost of a theatre building in 1913 will give very little help in arriving at the cost after the war, when building is resumed, as it will be a long time before the different departments reach a position of comparative stability. In the ten years 1904 to 1914 the cost of labour in all trades went up 10 per cent., or an average of 1d. per hour. Materials varied more in that time, but an average might be taken of 7½ per cent. increase. Taking the cost of theatre building in 1904 as 1s. to 1s. 3d. per foot cube, and allowing an all-round advance of 10 per cent., the cost would be brought up to 1s. 1¼d. and 1s. 4½d. per foot cube at the commencement of 1914. The exact figure would, of course, depend upon the style and quality of the work; perhaps 1s. 3d. per cube foot would allow for reinforced concrete construction and plain stone facing at that period. The electric lighting is more difficult to estimate. The generating plant for electric lighting costs about £100 per kilowatt. A kilowatt will light twenty lamps from eight to sixteen candle-power each, but the number usually installed will be double this, as they are not all lighted at the same time. The wiring will cost, say, £40 for the forty lamps. The cost of electricity from company's mains is about ½d. per hour per sixteen-candle-power lamp. Possibly the cost of lighting can be made up approximately from these data. The total cost, including lighting, might be from £20 to £25 per seat.

HENRY ADAMS.

Discharge of Sea Outfall Sewer.

F. writes: "Please give the formula for ascertaining the quantity of water which would be discharged at point A on the enclosed diagram (1) during a period of high water; (2) when the water falls below invert A. There are several connections to the 30-in. pipe, aggregating about 200 per cent. of its area, the head of these connections being somewhat above level D."

—The discharge of a sea outfall sewer can be ascertained approximately, by Hawksley's formula, viz.:

$$h = G^2\left(\frac{L}{240\ d^5} + \frac{.\,L}{240\ d_1^5}\right)$$

$$G = \sqrt{\frac{240\ h}{\left(\frac{L}{d^5}\quad\frac{L_1}{d_1^5}\right)}} \quad \text{where}$$

G = discharge in gallons per minute.
h = head in feet, or height above high water of the maximum level desirable in the sewers at the upper end of the outfall pipe.
L and L = length of the respective sections of the sewers in yards.
d and d = diameters of the respective sections of the sewers in inches.

The discharge during the time of low water can be obtained from the foregoing formula by taking h equal to the height between the centre of the outlet end of the pipe and the maximum level desirable in the sewers at the upper end of the outfall pipe. The actual discharge may vary very considerably from that given by the formula. The friction of the sewage flowing through the pipes will depend upon the nature and condition of the materials employed, while the flap valve will absorb an appreciable amount of the head.

HENRY ADAMS.

NEWS ITEMS.

Taunton Building Trade Strike Ends.

The strike of the bricklayers, carpenters, painters, and labourers connected with the building trade at Taunton has terminated, and the men, about 200 in number, have resumed work, the employers having conceded an all-round advance of twopence an hour.

Archdeacon Wilberforce Memorial at Westminster.

On the death of Archdeacon Wilberforce, rector of St. John's, Westminster, two years ago, an appeal was made for a fund for the endowment in his memory of the St. John's Institute, in which he took an active interest. Unfortunately, the appeal did not meet with quite as generous a response as had been hoped for, but the Institute has derived very considerable benefit from it in the carrying on of its work. In addition to the Institute fund it was decided to place a memorial tablet in St. John's Church, and as the Archdeacon died on May 13, 1916, the unveiling ceremony was performed on the eve of that date this year by the Bishop of Willesden, an old friend of Dr. Wilberforce. An address was given by Mr. G. W. E. Russell, writer of the life of Archdeacon Wilberforce.

Architects and War Service.

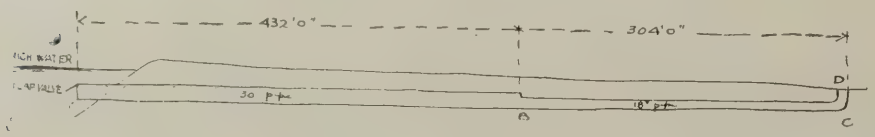
Acting on a suggestion of the Architects' War Committee, the Council of the Royal Institute, as reported elsewhere in this issue, sent on May 16 a deputation to wait upon Sir Auckland Geddes and discuss with him the possibility of securing technical employment in the Services for architects who will be called up under the Act extending the age for military service. In the unavoidable absence of Sir Auckland Geddes, the deputation was met by Colonel Scovell and other officers in the Army, Navy, and Air Force. The deputation was very sympathetically received, and there seems a fair prospect that the proposals of the deputation may take effect. All arch tects who are affected by the extension the age limit are asked to communicat with the Hon. Secretary, of the Architect War Committee, 9, Conduit Stree London, W., in order that they may b communicated with in due course.

Depositing Concrete.

It is likely (says a writer on engineerin and shipbuilding in the "Financi News") that in the period of reconstruc tion that will follow the war concrete wi be used to an extent which will greatl surpass that to which it is used at presen In view of that fact, attention may be calle to a labour-saving method of workin which should be universally adopted b concrete users, not only in building bu also in ship construction. The concret should be mixed in the usual way and the taken to a staging—if it is preferred th constituents may be taken dry and mixe on the stage—erected above the work From this overhead travellers, electricall driven, carry the concrete direct to th moulds and tip it into position, where i is rammed by hand. For big work shoots can be built, arranged at an angl of 45 deg., into which the concrete can b tipped, so that it will flow down into posi tion by gravity. An open trough i preferable to a closed tube, as clogging no only takes place less frequently, but ca be readily dealt with when it does occur Movable shoots or troughs, with counter weight and a supplying tower, can b built in a fairly central position, and th shoot moved to place after place a required.

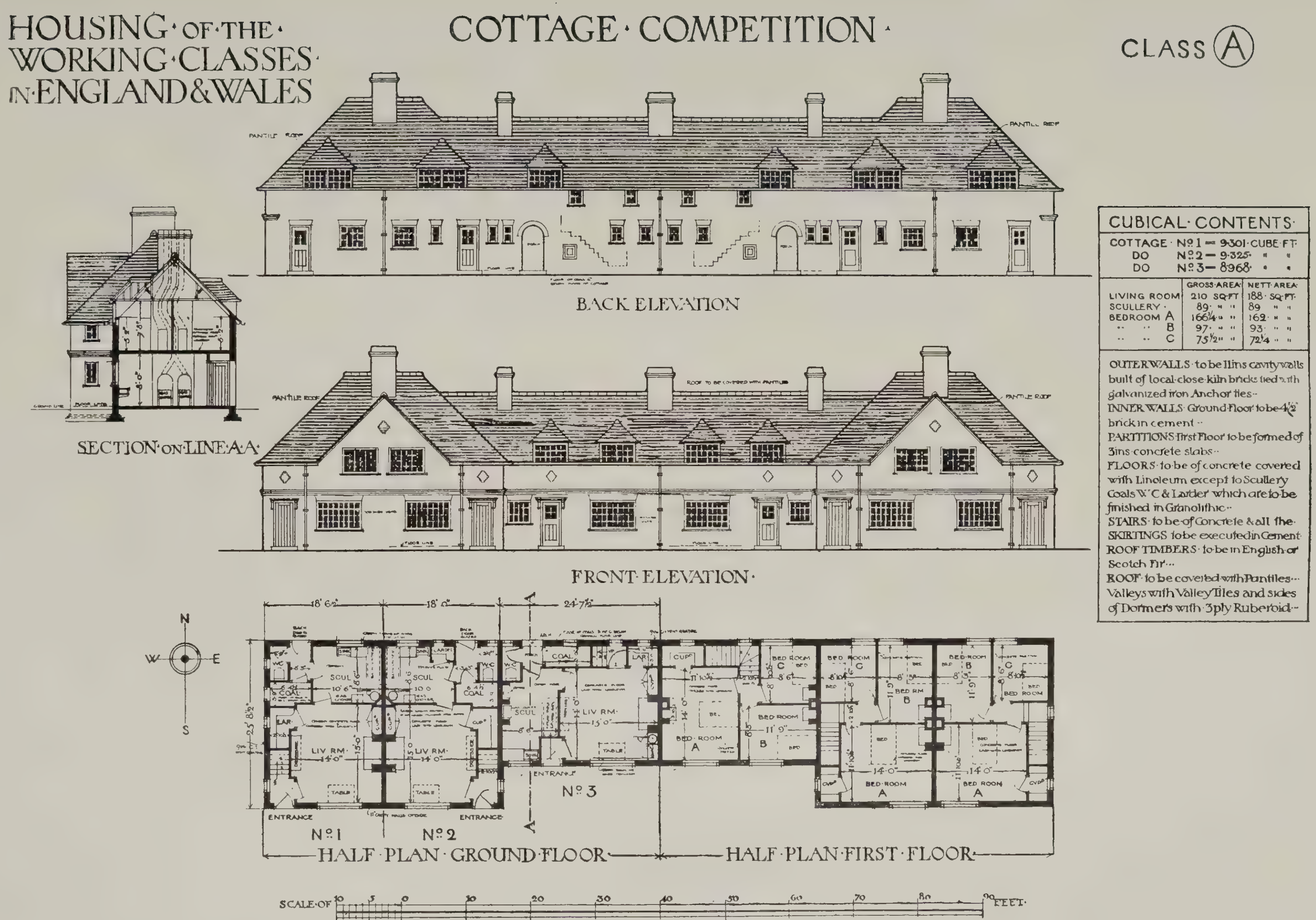
Auctioneers' and Estate Agents' War Effort.

Mr. William Henry Wells (London) wa re-elected President of the Auctioneers' an Estate Agents' Institute at the annua meeting held in the Council Chamber, 34 Russell Square. In the course of hi presidential address he stated that in addi tion to providing the purchase money o the "Star and Garter" as a home for dis abled sailors and soldiers, the Institute ha bought Ancaster House and endowed si rooms and one bed, and that the Quee had acceded to the request of the Counci that the rooms should be named after he sons and daughter. The membership o the Institute numbered 3,095—Fellows Associates, and students—practically the same as last year, though they had t deplore the loss of many valuable lives in the service of their country, notably that of Lieutenant-Commander J. Dawbarn Young, who died gloriously in the raid on Zeebrugge. A third of the members were in the fighting forces, and many had gained distinctions. Of the remainder very many were doing work of the highest importance in connection with the control and distribution of live stock for the requirements of the civilian population. Referring to the scheme of the Government for the building of 300,000 houses after the War with Treasury assistance, chiefly through the agencies of the municipalities, he strongly urged that unless disaster was to follow these municipal schemes, there must be adequate safeguards to ensure that ultimately the houses erected with State assistance should be let at economic rents, and that the nation was not committed to a system of State-endowed houses. The report and accounts, which showed a credit balance of £14,432, after allowing for the difference on conversion of securities into 5 per Cent. War Loan, and an increase of £700 in the Benevolent Fund, were adopted.



Level of invert at C equals 3 ft. 3 in. below turned up entry to pipe at D.
" " B " 2 ft. 0 in. " invert at C.
" " A " 5 ft. 6 in. " " B.
High water level " 4 ft. 0 in. above " A equals 6 ft. 9 in. below level at D.
Low water level is much lower (say 20 ft. 0 in. below high water.

DISCHARGE OF SEA OUTFALL SEWER.



CUBICAL·CONTENTS·

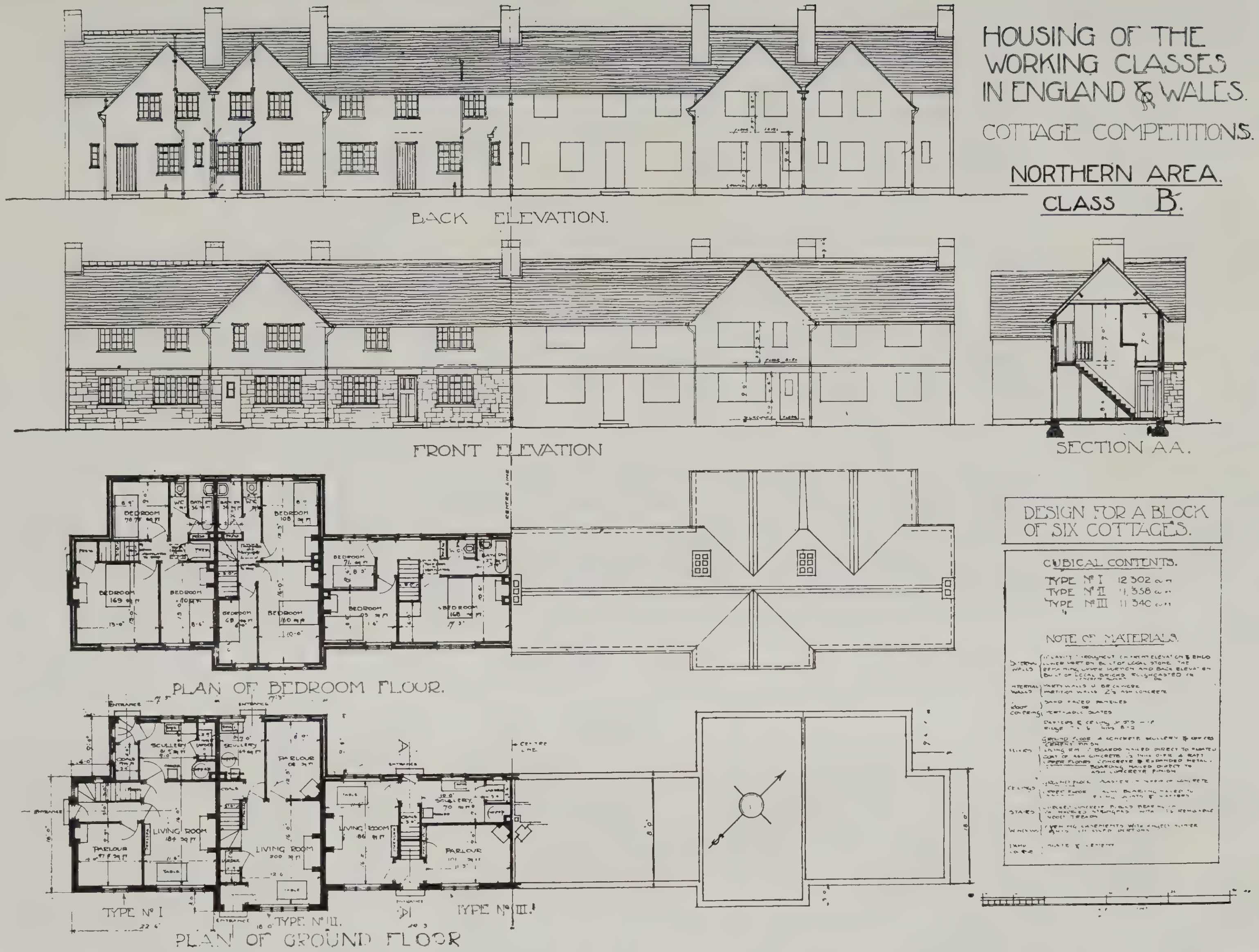
COTTAGE·Nº1 — 9·301·CUBE·FT·
DO Nº2 — 9·325· " "
DO Nº3 — 8968· " "

	GROSS·AREA·	NETT·AREA·
LIVING ROOM	210 SQ·FT	188· SQ·FT·
SCULLERY·	89· " "	89 " "
BEDROOM A	166¼" "	162· " "
" " B	97· " "	93· " "
" " C	75½" "	72¼ " "

OUTER WALLS·to be 11ins cavity walls built of local·close·kiln bricks tied with galvanized iron Anchor ties··
INNER WALLS·Ground Floor to be 4½" brick in cement··
PARTITIONS First Floor to be formed of 3ins·concrete slabs··
FLOORS·to be of concrete covered with Linoleum except to Scullery Coals W.C & Larder which are to be finished in Granolithic··
STAIRS·to be of Concrete & all the SKIRTINGS to be executed in Cement·
ROOF TIMBERS·to be in English or Scotch Fir···
ROOF·to be covered with Pantiles··· Valleys with Valley Tiles and sides of Dormers with 3ply Ruberoid··

CURRENT ARCHITECTURE (SERIES V.). XXVIII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (NORTHERN AREA): FIRST-PREMIATED DESIGN, CLASS A.

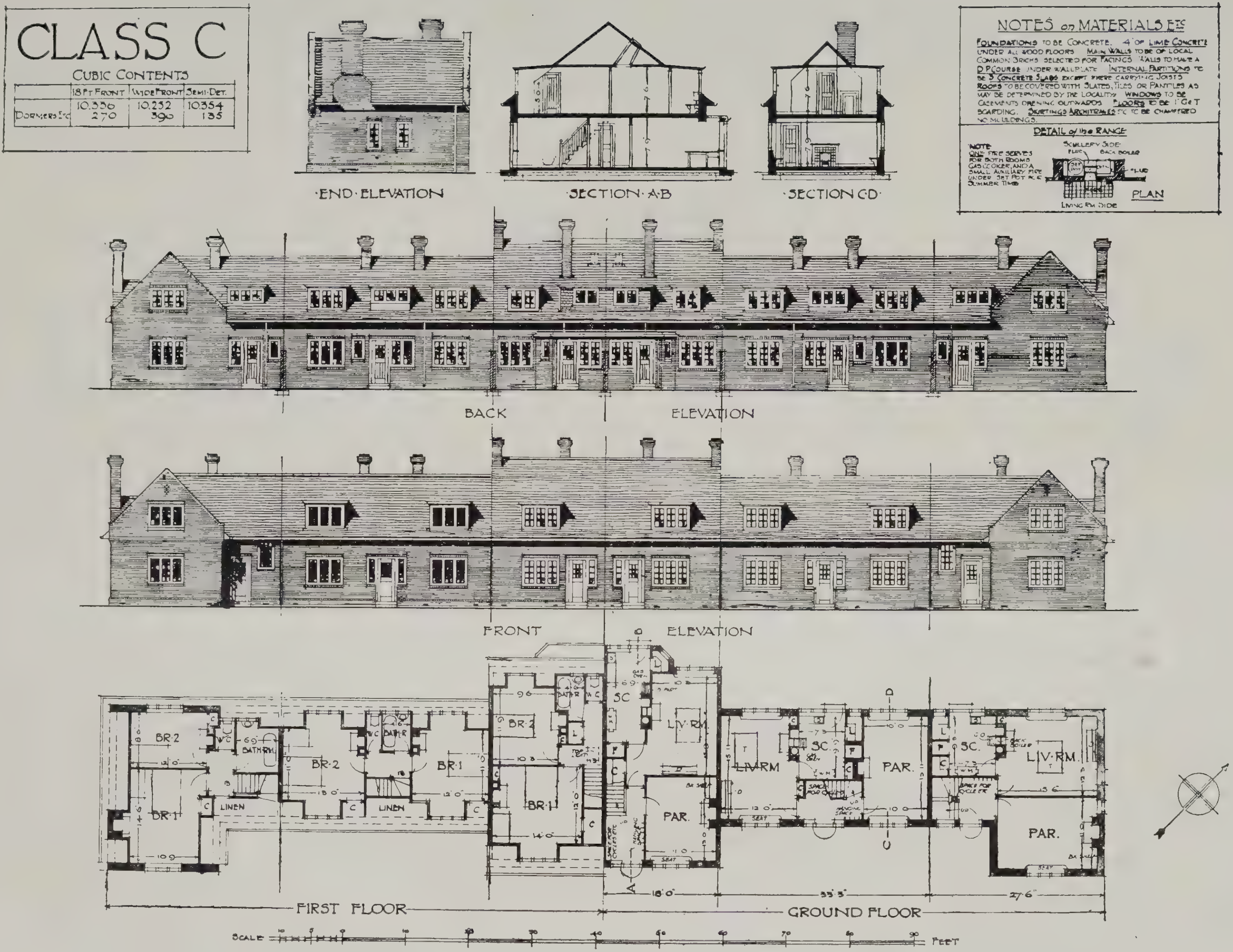
J. HERVEY RUTHERFORD, ARCHITECT.



CURRENT ARCHITECTURE (SERIES V.). XXIX.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (NORTHERN AREA): FIRST-PREMIATED DESIGN, CLASS B.

ALEX. T. SCOTT, ARCHITECT.

OF THE
UNIVERSITY OF ILLINOIS



CLASS C

CUBIC CONTENTS

	18 FT FRONT	WIDE FRONT	SEMI-DET.
DORMERS ETC	10.336 270	10.252 390	10.354 135

NOTES on MATERIALS ETC

FOUNDATIONS TO BE CONCRETE. 4" OF LIME CONCRETE UNDER ALL WOOD FLOORS. MAIN WALLS TO BE OF LOCAL COMMON BRICKS SELECTED FOR FACINGS. WALLS TO HAVE A D.P. COURSE UNDER WALLPLATE. INTERNAL PARTITIONS TO BE 3" CONCRETE SLABS EXCEPT WHERE CARRYING JOISTS. ROOFS TO BE COVERED WITH SLATES, TILES OR PANTILES AS MAY BE DETERMINED BY THE LOCALITY. WINDOWS TO BE CASEMENTS OPENING OUTWARDS. FLOORS TO BE 1" G. & T. BOARDING. SKIRTINGS, ARCHITRAVES ETC TO BE CHAMFERED NO MOULDINGS.

DETAIL of the RANGE

NOTE: ONE FIRE SERVES FOR BOTH ROOMS. GAS COOKER AND A SMALL AUXILIARY FIRE UNDER SET POT FOR SUMMER TIME.

CURRENT ARCHITECTURE (SERIES V.). XXX.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (NORTHERN AREA): FIRST-PREMIATED DESIGN, CLASS C.

KNOWLES, OLIVER, AND LEESON, ARCHITECTS.

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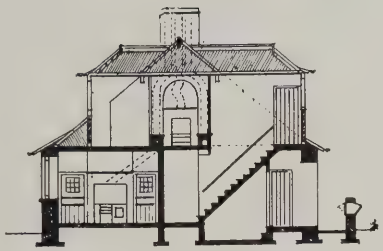
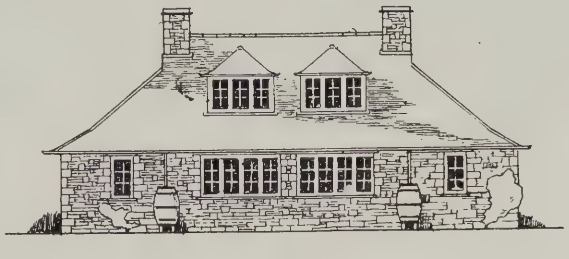
NATIONAL HOUSING COMPETITION.

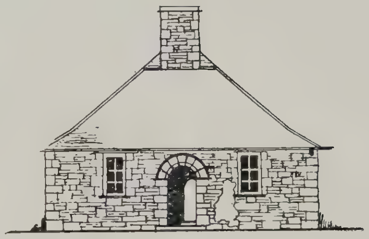
CLASS. D.



SECTION. A-B.



SOUTH ELEVATION.



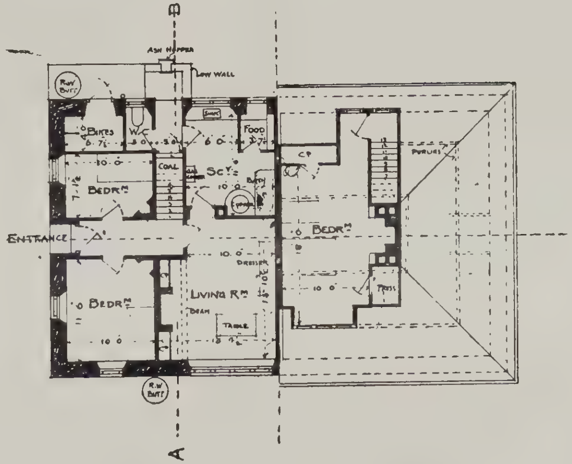
WEST ELEVATION.

NOTES

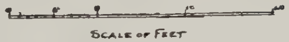
OUTSIDE WALLS TO BE OF LOCAL RUBBLE.
INTERNAL - - - - BRICK
ROOFS TO BE OF LOCAL SLATES [THIRDS]
FLOORS LIVING RM TO BE "SAMZ" ~
SCY, BIKES, W.C &c GRANOLITHIC ~
BEDROOMS & LOBBY BOARDS & JOISTS

CUBICAL CONTENTS

EACH HOUSE AS SHEWN 13158 CUB FT
IF WITH OUTER WALLS BUILT IN 9" BK
& ROUGH CAST — 12390 CUB FT

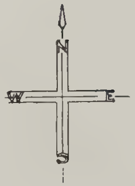


GROUND FLOOR FIRST FLOOR.



NOTES

BATHS TO BE SUNK 6" IN FLOOR
WITH H W SUPPLY FROM COPPER
ASH BINS TO BE DR QUINN'S
PATENT TIPPLER PATTERN



CURRENT ARCHITECTURE (SERIES V.). XXXI.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (NORTHERN AREA): FIRST-PREMIATED DESIGN, CLASS D.

F. R. DUNKERLEY, ARCHITECT.

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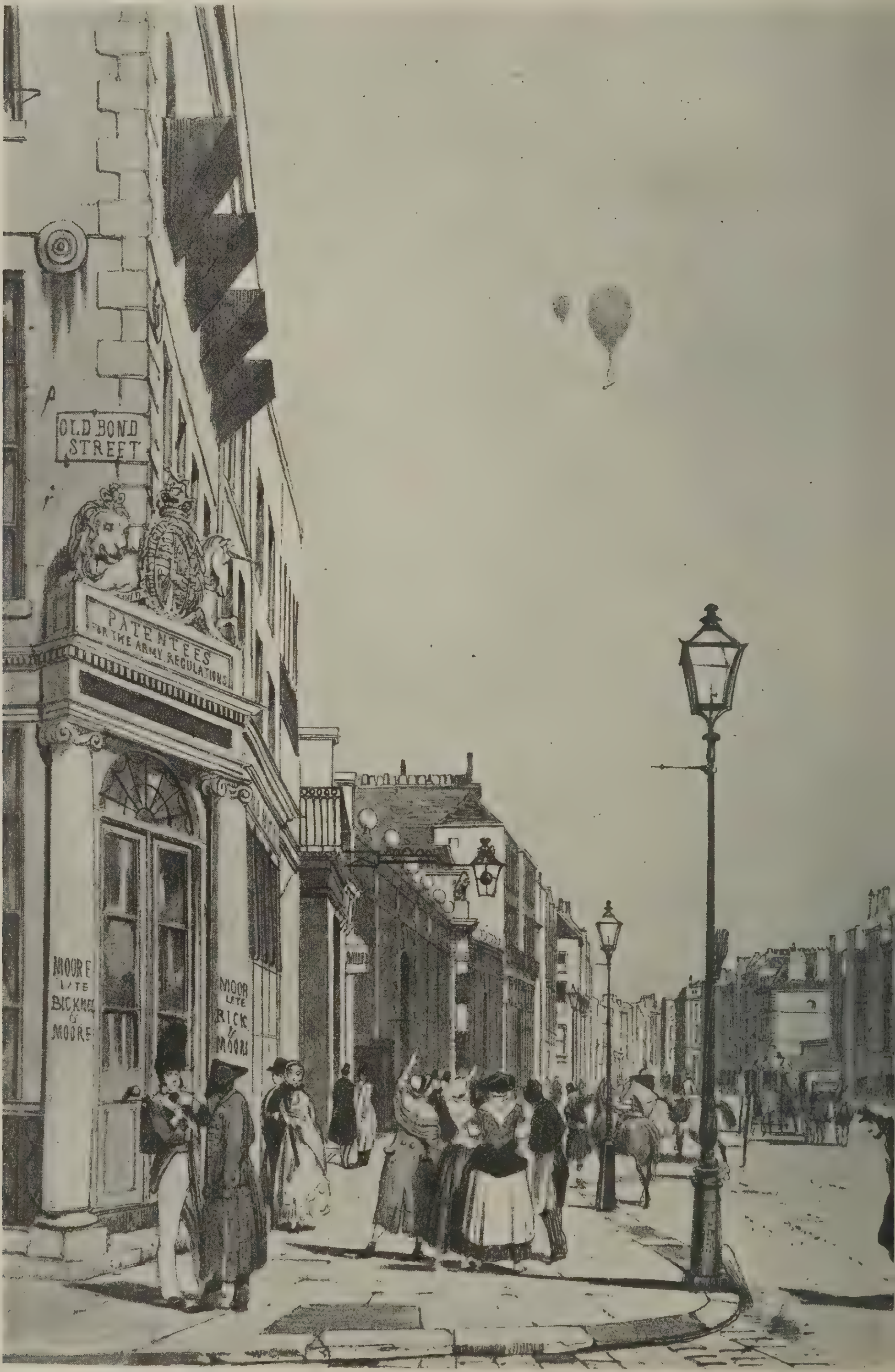
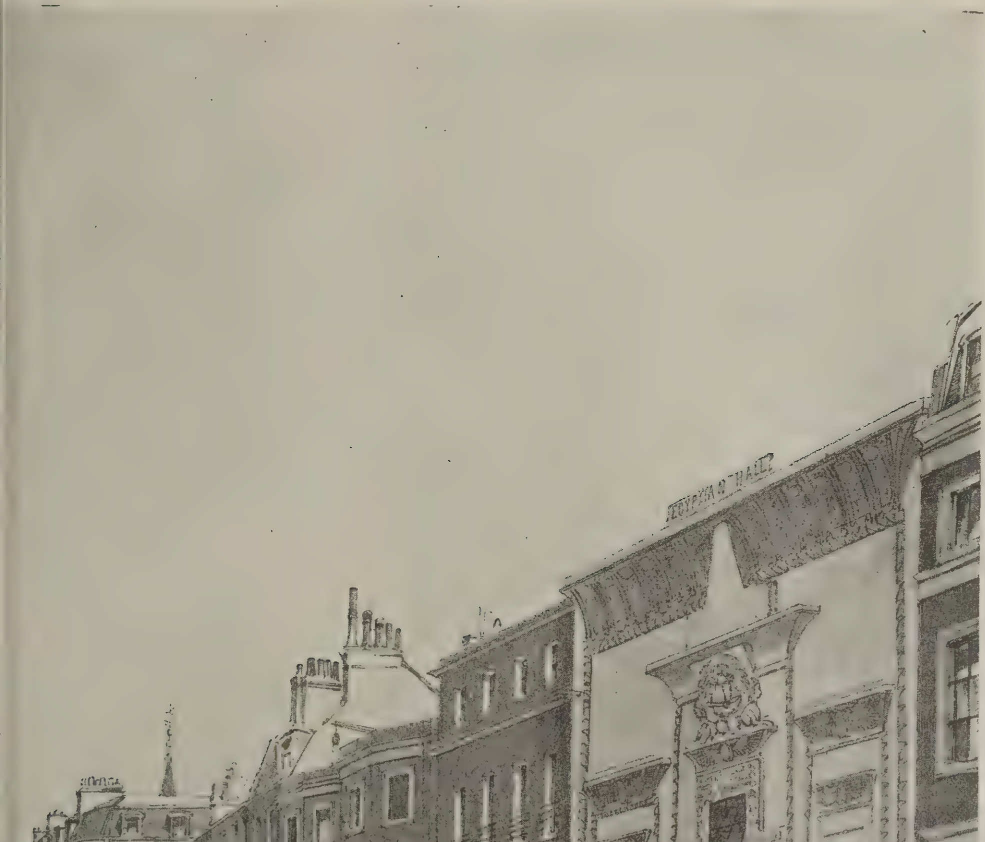

OLD BOND STREET
PATENTEES FOR THE ARMY REGULATIONS
MOORE LATE BICKNELL & MOORE
MOORE LATE BICK & MOORE

ARCHITECTURAL DRAWINGS AND SKETCHES. XIX.—LONDON

(From the Lithogra



HE 'FORTIES : PICCADILLY, LOOKING TOWARDS THE CIRCUS.

T. S. Boys, 1842.)

THE ARCHITECTS' AND BUILDERS' JOURNAL.

JUNE 12, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1223.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) By placing a direct subscription for this Journal, or (2) by placing with a newsagent an order for its regular delivery.

The Government Paper Controller has now forbidden the return of unsold copies of newspapers and periodicals to the publishers. Newsagents are therefore now keenly interested in the elimination of the casual customer—and are morally compelled to obtain only those papers that have been previously ordered. This fresh development strongly emphasises the foregoing advice to place a direct subscription or to give a newsagent a standing order for regular delivery.

A "SUPPLEMENTARY STATEMENT" issued by the London Master Builders' and Aircraft Industries' Association deals with three important aspects of State control. It discusses, briefly and pointedly, War Wages, Reconstruction, and Housing. Under the first heading, it is shown, by "approximate calculations," that the skilled workers in the building trades are now receiving about £4 10s. for a week of sixty hours, while the unskilled workers get about £3 10s. It is believed, therefore, "that the Government has at last reached the limit of its benevolent intentions," but you never can tell: because, as the "Statement" has it (under the heading "Reconstruction"), in the building industry, "those who were employers are practically employers no longer, for they have virtually been deprived of any control as to the quality, quantity, or price of materials, or as to wages." When at length they resume this control, the readjustment of wages rates will be a formidable task, complicated by new conditions and to a considerable extent prejudiced by the present abnormal inflation. It seems not improbable that the settlement of wages rates, whether in this or in any other important industry, will require special machinery, such as wages courts, by which rates can be adjusted from time to time in accordance with fluctuations of prosperity. To have wages perpetually moving sensitively up or down as the markets rise or fall, has been hitherto out of the question; some sort of "constant of labour" being indispensable to fairly close estimating for contracts; but here arises the challenging question whether competitive tendering for contracts is likely to be superseded by a system that will not gamble with rates. For every endeavour to submit the lowest tender is pretty much of a gamble, almost the only constant factor in it being the "trade-union rate of wages for the district."

* * * *

A fixed wage-rate being the sheet-anchor of the competitive tenderer, he naturally wishes to keep it constant a long way ahead, and hence usually insists that agreements with the workers shall be for a period of years sufficient to cover the duration of a moderately large contract. Here is where a great deal of trouble arises, the workers being impatient and suspicious of agreements that may leave them to rearward of a forward movement, and that, more especially, are (if only in seeming) in such marked contrast to the practice of dismissing a man at an hour's notice. To fix labour conditions for a period of, say, three years may be a reasonable requirement of the competitive tenderer, but the worker does not like it. He nearly always objects to it, and, what is more serious, he does not hesitate to throw over an agreement that, in his view, time may have staled and sterilised. Long-period agreements with labour become unnecessary with the adoption of the prime-cost system, which, while it protects the contractor from losses through fluctuations in cost of labour and materials, at the same time secures to the building owner any advantage that may accrue from a fall in prices. In other words, the contractor is paid for what he actually supplies, and the building owner gets no more and no less than what he pays for. Several eminent firms of builders prefer to work on this system, and we are acquainted with at least one Fellow of the Institute who will work on no other, because he is convinced that this is the best guarantee of quality in materials and workmanship. No doubt this matter will be one of the earliest to receive attention from the newly formed Builders' Parliament, where labour opinion upon it should be freely expressed.

* * * *

It is gratifying to see in the "Statement," under this same heading "Reconstruction," an acknowledgment that, in two instances, some limited form of Government control may be necessary after the war. It is admitted that the Government might reasonably retain for a short time the power to commandeer building material for their own use for work of urgent national importance, such as shipbuilding; and that during the temporary shortage of material maximum prices may be fixed to prevent profiteering. Anxious as we are, and always have been, that Government control should cease at the earliest possible moment, we have always held, and still hold, that cessation might easily be premature and anything but beneficial to the building industry at large—that as long as materials are scarce, their equitable distribution will be best secured by leaving it in the hands of the Government, or, as we may now add, preferably of some State-appointed committee of architects, builders, and supply merchants, including shippers. We urge the immediate formation of such a committee (in addition to the committee already appointed by the Ministry of Reconstruction, and more intimately associated with the interests involved), which should be honorary, and free from all taint of bureaucracy, and from all temptation to cling to office. Nor would it employ the methods of martial law. Under the heading "Housing Schemes," the "Statement" deprecates wholesale commandeering of building material for housing schemes, and urges that the building of working-class dwellings should "take its regular place" in common with other building operations. Arguments in support of this contention are adduced, and one of them is that the case for extensive housing schemes has been greatly exaggerated. Probably it has; but there is so much dynamic force in it that the Government have found it irresistible. Opposition to so insistent a popular cry will have to be conducted with great tact and discretion, and in full recognition that housing has certainly fallen greatly in arrear. That this class of work must not be allowed to absorb all the materials and energy available immediately after the war is a sound common-sense plea that cannot be disregarded with impunity, and that will certainly prevail when urged with firmness and moderation. It can be shown that there is an equal necessity for factories and other business premises, and for schools, and that the rational way will be to let these several classes of building proceed *pari passu*. They are related very closely—and, indeed, all classes of building have obviously some sort of communal interdependence, and the normal balance ought not to be artificially disturbed by frantically energetic attention to one class to the exclusion of others. It is very proper to advise the Government on this point; but we recur to the suggestion that while, immediately after the war, control may be necessary until supplies become sufficient, that control should not be exercised by Government officials, but by an *ad hoc* committee, drawn from the profession and industry.

* * * *

Whether the new Building Trades Parliament, whose inaugural meeting we reported last week, is competent to render the advice and service of which the Ministry of Reconstruction is wise enough to feel the need, is a point on which we should feel more assurance if the "Parliament" were more comprehensively constituted. It consists of representatives of employers and employed. It therefore excludes the architects. This is perhaps logical; but is it wise? Mr. G. H. Roberts, the Minister of Labour, said, at the inauguration of this alleged "Parliament" (its official title, "The Industrial Council for the Building Industry" narrows the issue more explicitly), that "the one essential thing was that there should be a central council fully representative of the particular trade electing it which could advise the Government on matters either legislative or administrative." He further said, with reference to the doubts expressed by Scottish builders whether their peculiar trade conditions "could be brought into harmony with a national body," that he "thought there were many points which must be common to the trade as a whole." There was naturally much harping on the "trade" and the "industry" of building, but, so far as we can see, not a word was said about the architect. Apparently he is regarded as a rank outsider. "Oh, no, we never mention him—his name is never heard." Surely this is a profound mistake. That it has been made, and that thereby the yawning gulf between the profession and the trade of building has been perceptibly widened, whereas we had fondly hoped that a "Builders' Parliament" would bridge it over or fill it level, is in large measure the fault of the architect himself. He has had too much delicacy to point out that a Builders' Parliament from which he is excluded—and he does not seem to have been given even a ticket for the Strangers' Gallery—is the play of "Hamlet" with the part of the Prince of Denmark "cut": which is "the most unkindest cut of all." It may be contended that this being an affair of employer and workman, the architect does not come in; which, in our opinion, is the very reason why he ought to. His disinterested view is precisely what is wanted as a moderating, or coalescing, or solvent influence amidst these fighting elements. And are architectural interests entirely foreign to such an assembly? Surely they "touch the building industry at many points." Until they are in some way introduced, the expression "Builders' Parliament," which had caught our fancy as a promise of unity, must be dismissed as a glaring misnomer.

* * * *

Two interesting cases of corrosion of roofing-lead, and a case of stone-weathering, have been investigated by Professor J. S. S. Brame, who described them at a meeting of the Society of Chemical Industry, and has since very usefully republished, in leaflet form, the report printed in the Journal of the Society. In the first case, cast-lead sheets were found to be corroded only where in contact with oak beams. Where the lead rested on pine there was no corrosion. In the second case, more marked corrosion had occurred where the metal had been laid on coke-breeze concrete. Patches of a thick crust of a red substance had accumulated between the lead and the concrete, and in places the lead was eaten through. Here the concrete consisted of about eight parts of coke-breeze and about one part of Portland cement, and Professor Brame supposes that the action was probably due to the free lime (calcium hydroxide), which, in the presence of moisture, forms with the metal, hydrated lead oxides. In the discussion on Professor Brame's paper, which included chemical analyses, Dr. S. Miall expressed strong doubt whether there was sufficient acetic acid in ordinary oak to act on sheet lead placed in contact with it, and he suggested that in the second case there may have been a formation of calcium plumbite, which might afterwards form calcium plumbate, which, being readily attacked, might produce a certain amount of peroxide or red lead. This explanation Professor Brame, in replying to the discussion, thought to be true. Mr. G. Nevill Huntly mentioned a well-established tradition among plumbers not to allow lead pipes to come in contact with lime or mortar, and had seen lead pipes that had been corroded by mortar; while Mr. Arnold Philip stated that electric-cable companies always prohibited lead-covered cables being brought into contact with Portland cement. Mr. Walter F. Reid remarked that the corrosive action on Portland cement on lead was well known, but the cause of it was not known. To his suggestion that the sulphur in the coke-breeze may have set up corrosion, Professor Brame replied that in the case he had investigated there was nothing more than a trace of sulphur in the corroded material. To the case of stone-weathering we shal refer next week.

* * * *

Reinforced concrete has behaved splendidly under aerial attack, and when, some considerable time ago, a building constructed of that material was severely damaged by a bomb, much surprise was expressed. It was unreasonable to assume that this or any other material of construction could be proof against a direct hit, but opponents of reinforced concrete made the most of the rumour that this particular building had been badly damaged. Thanks to information supplied in the House of Commons last week (on June 3) by Mr. Brace, Under-Secretary for the Home Department, in reply to a question by Mr. Percy Harris, the material has been vindicated, as well as the confidence in it which led to this building's being selected as a shelter from air-raids. Mr. Brace stated that technical experts appointed by the Committee on Scientific and Industrial Research had found that none of the concrete floors had been pierced by the bomb, the point of entry being a pavement light. He added that the occurrence therefore suggested no reason for doubting the utility of concrete floors as affording reasonable protection against blind shells, incendiary bombs, and explosive bombs of small size. Confidence in the material is unabated; but too much should not be expected of it. All reasonable demands upon it are amply met. It is unrivalled in the degree of its resistance to fire, to earthquake, and to bombing. Direct hits of buildings have been remarkably few, and, as already said, are irresistible; but even in these cases, there is a vast difference in the effects on different types of buildings. Some collapse utterly; others remain reparable. Where the bomb explodes in a street, and gets in its deadly work mainly by vibration, reinforced-concrete monolithic structures are reported to have stood firm where brick buildings near them have been disintegrated.

HERE AND THERE.

LAST week, in a more or less unguarded moment, I made a passing reference to Aldwych and Kingsway. It now appears that many persons, mostly from overseas, are thirsting for information about this area. One gentleman asks whether he will win his bet that Aldwych and Kingsway are "fake names." Guess his nationality. I cannot undertake to decide wagers; and the only answer I could give in this case would, I suppose, suggest that the stakes be divided. It would, I think, puzzle a Philadelphian lawyer to decide whether or not the names are faked. Kingsway is, I believe, an old local name, revived in honour of King Edward VII., who, with his Queen, opened Kingsway and Aldwych on October 18, 1905. Aldwych is apparently a revival of an older form of Wych Street, which street, together with Holywell Street (or Booksellers' Row), was demolished to make room for the new thoroughfares.

* * * *

By the time the London County Council had made up its mind to begin here the re-planning of London, the area had become the most notorious of London's slums. Before reaching that pitch of ripeness, it had passed—or much of it had—through the usual stages of deterioration, from mansion to doss-house. At the beginning of the seventeenth century, many noble families and other wealthy or distinguished persons lived thereabouts—dukes and duchesses, earls and baronets and knights. By the beginning of the nineteenth century, the district had "come down" to such depths that its final coming down physically was much overdue when, at last, the Metropolitan Board of Works resolved, in July, 1883, to ask Parliament to sanction the formation of a new street from Holborn to the Strand, the widening of the Strand by the obliteration of Holywell Street being an item in the greatest scheme of improvement that London had known since the formation of Regent Street in 1820.

* * * *

In April, 1889, the then newly formed London County Council instructed committees to report on the Strand area, and a scheme was prepared. In July, 1892, another scheme was brought forward, only to be pigeon-holed. It was not until 1896 that the Council decided to take action—to make a beginning on the scheme by demolishing Holywell Street, which was done under an Act of 1897. In November of the same year it was decided to widen Southampton Row, and powers were obtained in 1899. Finally, the complete scheme, modified in accordance with suggestions made by the Royal Institute of British Architects, was sanctioned by Parliament in spite of forty powerful petitioners against the Bill. The estimated gross cost of the scheme was £6,120,380, but the disposal of the building land was estimated to bring back £4,363,200, so that the cost to the ratepayers would be £1,757,180. More sanguine statisticians were easily able to prove (during an election) that the ultimate cost to the ratepayers would be nothing whatever—that, in fact, they would gain by it. Subsequently a distinguished member of the Council made his famous epigram, that though figures cannot lie, liars can figure.

* * * *

After the scheme had been sanctioned, Mr. Hamo Thornycroft and others suggested a considerable modification of it. The northern frontage between the churches of St. Mary-le-Strand and St. Clement Dane's was to be so arranged as to bring St. Mary into alignment with the middle of the thoroughfare, which was to hit St. Clement in the solar plexus, so to speak, and not on the left shoulder, and in the same operation give a clear view of the Courts of Justice (and, incidentally and regrettably, of the Griffin and German cooking stove) to the traveller bound eastward; but as the improvement would have cost twopence-halfpenny more, the Council quite naturally rejected it. All this may be very familiar to Londoners (though I rather doubt it, for, in my experience, nobody is so ignorant of the history and monuments of the metropolis as your born Cockney, who knows his way about, but knows none of the landmarks except the signs of the public-houses). I have often wondered whether the sarcasm of the cabman was intentional when he took part in the famous colloquy: "Drive me to the Royal Courts of Justice." "Where are they?—never heard of 'em." "What! you, a London cabman, don't know the Law Courts!" "Ho yus! I know the Law Courts right enough; but you said the Courts of Justice."

* * * *

A young American sailor, coming out of Charing Cross Station the other day, took me aback with the startling question, "Say, sir! *Ex*cuse me! What street am I on?" As soon as I could get back my breath, and had gained time to conjecture from his facial expression that he was innocent of an attempt to take a rise out of me, I said, "Why, the Strand, of course." "Of course nothing! I'm an Amurican. Put me wise. Where does it lead?" "Where do you want to go to?" "Heaven eventually. Probably the other place first if I have the luck to get any considerable fighting. For the moment I don't care a toss which way I turn. Where does this end fetch up?" [Pointing eastwards.] "Oh, that will take you past the Law Courts, along Fleet Street, up Ludgate Hill to St. Paul's Cathedral, and then down east." His eyes kindled with the joy of recognition of names that were familiar to him. I envied him the freshness with which he would gaze on Street's anachronism; on the egregious Griffin (I should have liked to hear his comments on it, provided no ladies were within earshot, but the thing itself is petrified and petrifying blasphemy); on the multitudinous newspaper offices and Johnson-cum-Goldsmith-glorified courts in what our most brilliant war-correspondent, Philip Gibbs (I am rather proud to boast that he was once a colleague of mine in La Belle Sauvage Yard) christened "The Street of Adventure"; on the great dome which for many of us epitomises London. But the sailor asked another question: "And whereaway westward?" "Oh, Trafalgar Square—" "And the Naytional Gallery, and the Nelson Monument! Jerusalem! I'm steering due west this trip. I guess St. Paul's'll keep if it ain't bombed." Then, to quote the poet, "He gave a hitch To his trousers, which Is a trick all seamen larn," and went west full steam. "Go west, young man—go west," but not, I pray Heaven, in the sense of the current military euphemism.

* * * *

He is numerous in London just now (I trust that Dora is not eavesdropping), and it is for the likes of him that I am penning these brief and artless notes on Kingsway and Aldwych. They will regard it as news that the Gladstone monument to the west of St. Clement Danes was designed by Mr. Hamo Thornycroft, R.A. They will, I fear, be less interested to know that, in April, 1900, the London County Council decided to invite eight architects to submit designs for buildings on the area, and that the names of the octave are, or were (alas! for the "were")—Reginald Blomfield, William Flockhart, Ernest George, Henry T. Hare, Mervyn E. Macartney, E. W. Mountford, Ernest Runtz, and Leonard Stokes. Norman Shaw, R.A., was invited to act as assessor. He refused a fat fee for the job. "Very unprofessional," say you? Nay; architects have a weakness for doing splendid work without fee or reward. And hear his excuse: He was anxious, he said, to place his services at the disposal of a body engaged in the congenial occupation of beautifying the architecture of the city in which one dwells. This early enthusiasm for beauty seems to have waned in the measure of the rising of the rates. Each of the architects who submitted designs—which were not necessarily to be executed, but were intended "to guide the Council in its control of the architectural features connected with the Holborn to the Strand Improvement"—was awarded a fee of £250. Very wisely, the Council invited the Royal Institute to co-operate in securing architectural treatment; but, speaking generally from the appearance of the street, I imagine that much of the architectural advice must have missed fire. There is no overwhelmingly convincing evidence in Kingsway, or anywhere else, that "the congenial occupation of beautifying the architecture" of London has made any very excessive demands on the Council's taste. But they had to clear away a lot of unsavoury slums, and the obligation to rehouse the slumgullions was the beginning of some rather wild adventures in housing, and led to the formation of the unfortunate Works Department. An important adjunct to the scheme was the construction of a shallow subway for trams. An Act authorising this work was passed in 1902; and our American friends may like to be reminded that, before deciding on this undertaking, the Council sent delegates to inspect the shallow underground system at work in New York and Boston, U.S.A.

DIOGENES.

CORRESPONDENCE.

A Hint to Manufacturers.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It is an unpalatable truth that in many architects' offices a notice is exhibited, "No travellers seen unless by appointment." This is unfortunate, as new and valuable appliances and materials may languish for lack of support. The blame for this non-recognition must, however, be put upon the shoulders of the manufacturer or trader. Every employment or occupation requires a certain knowledge and capacity for successful accomplishment, but the travelling representatives chosen to call upon men skilled in a technical subject are, in the majority of cases, sadly lacking in a very elementary knowledge of the goods they hope to sell. The services of a bagman or drummer may be useful to push a patent pill or compound among the uneducated, but to employ upon technical matters unskilled men whose sole interest and perhaps sole reward is the commission upon sales is a course hardly to be commended, and one not likely to benefit the would-be seller, his employer, or the possible purchaser. On the other hand, it is refreshing and helpful to meet at rare intervals a trained man with a real knowledge of the construction or method of manufacture of his wares, and we see no reason why, when architects' offices are once again busy, this present small number of travelling experts should not increase, and be the only type of traveller with whom the profession have to deal.

NOEL D. SHEFFIELD.

THE PLATES.

R.I.B.A. National Housing Competition Designs.

IN this issue reproductions are given of the designs awarded first place in the South-Western area of the above competitions, of which our notice is now concluded. The various other areas were dealt with in the following issues: Home Counties, May 1 and 29; Midland, May 8; Liverpool and Manchester, May 15; South Wales, May 29; Northern, June 5; An excellent critical article on the competitions, by Mr. C. H. B. Quennell, F.R.I.B.A., appeared in the issue for May 8.

An Etching by Mr. William Walcot.

The Basilica of Constantine, upon which Mr. Walcot has based his etching entitled "A Court of Justice," reproduced on the double-page supplement in this issue, is remarkable as being the largest single room ever built on a simple oblong plan. Its central "nave" is nearly 300 ft. long, including its apse, and no less than 82 ft. wide. This central space was covered by a truly colossal vault, groined in three bays, and about 115 ft. high. On either side is an "aisle" made up of three "halls" connected together by openings through the transverse buttressing masses. These "halls," 55 ft. wide, are vaulted transversely, and thus form a perfect abutment against the main span. The vaulting has deep octagonal coffers; and the great vault was still more elaborate, having a series of cross-shaped compartments separating the main octagons, the intermediate spaces being filled with subsidiary panels. This etching is reproduced by courtesy of Mr. H. C. Dickins, the owner of the copyright.

WORKING WOMEN'S VIEWS ON HOUSING AND FITMENTS.*

BY MRS. SANDERSON FURNESS, Hon. Secretary, Housing Sub-Committee, Women's Labour League.

IF the working woman's house in the future is to be a real improvement on that which has been provided for her in the past, it is essential that it should contain all the modern fittings and conveniences which can be contrived. Very much of the drudgery of her life is due to the ill-considered planning of her home, and much might be done to lighten her labour by such means as modern methods of washing and cleaning, well-considered arrangement of rooms and cupboards, and the introduction of labour-saving devices. The Local Government Board has undertaken that 300,000 new houses shall be built during the year after peace has been declared, and these houses should be planned to meet the needs of working women who are ultimately responsible for the comfort and well-being of the home. The object of this paper is to consider some of the latest ideas for the saving of labour, and to see whether it will not be possible to embody them into any new scheme of housing.

In the autumn of 1917 the women in the Labour Party commenced an inquiry into the subject, and undertook to find out from working women what they felt to be the chief defects of their present houses, and what reforms they thought would be most to their advantage. With this end in view conferences were arranged all over the country, and a leaflet was issued which contained plans of two cottages which appeared to afford a good basis for discussion and a short and simple questionnaire dealing with the most essential features of a well-planned house. This leaflet is meeting with very marked success, and from the answers which have been sent (and which still continue to come in) it is obvious that the working woman has given much attention to the subject, and has very definite and very valuable ideas. In this paper the author gave some recommendations from the working woman's point of view.

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* Extracts from a paper read at a London sessional meeting of the Royal Sanitary Institute.

The first question to be decided is the size and number of the rooms. As to the building itself opinion is unanimously in favour of a self-contained cottage rather than a flat. It has been considered that working people prefer small rooms as being easier to keep clean and tidy, but the experience of the women shows this is a fallacy, and that where the family is large much labour is saved by the provision of plenty of space. It would therefore seem to be desirable that the rooms should be of a good size, well shaped, the living-room preferably square, and all rooms with as few corners as possible. In fact, most women favour the idea of rooms with rounded corners and no skirting boards to collect dust, and though they consider that all should contain a picture-rail, this should, for the same reason, be flat to the wall.

It is recommended that there be three rooms on the ground floor—namely, living-room, scullery-kitchen, and parlour, and a minimum of three bedrooms above. Cooking in the house of the future will probably be done in the scullery, and this should be so well fitted that the labour of cooking will be reduced to a minimum. Each scullery should contain a good gas stove large enough to cook a dinner for a family, but not so immoderately large as to take up an unnecessary amount of floor space. The sink should be of porcelain, deep, and with good draining boards, and over it a plate rack, which should be a fixture in every house. The proper place for the plate rack being immediately over the sink, the most convenient place for the sink would be on a side wall where a good light may be obtained, not under the window, which is cold in winter and hot in summer. Much labour might be saved if the scullery contained, not the conventional dresser, but a cupboard with doors and shelves, with a wide shelf on which could stand bins with the usual cooking requisites, viz., flour, sugar, cereals, etc., and underneath this shelf small recesses for bowls. Hot water should be laid on in every house. Most of the drudgery connected with housework arises from the difficulty of obtaining hot water. The ideal method is to arrange for central heating for small groups of houses, and it is quite a feasible one.

Englishwomen at present are decidedly not in favour of a common wash-house for several houses, and most of them prefer to wash at home. Probably the final solution will be municipal or parish laundries. This is not a popular method, but so much labour can be saved by the provision of up-to-date laundries, fitted with all modern conveniences, that women are not likely to continue doing the whole of their heavy washing in the small space allotted to the purpose in their homes. Light laundry work will always continue to be done at home, and therefore a small steamless copper should be provided, heated by gas, or, as an alternative, one of the new kinds of sinks which are arranged with a washing apparatus. Provision should also be made for drying clothes when the weather forbids their being dried in the open air, and laundry poles, attached to the ceiling of the scullery, should be part of the fixtures of every house. The larder should lead out of the scullery, and should be large enough to contain a good store of provisions, and, besides shelves, should have a window with a north or east aspect, small glazed ventilators being quite unsuccessful; they do not admit sufficient air, and they leave the larders dark.

To avoid the inconvenience and draught occasioned by many doors, a hatchway might be the means of communication between the scullery and living-room, and all rooms on the ground floor should open into the entrance lobby. This lobby is an important feature of the house, and should be light, and large enough to contain good pegs for hanging clothes, and a cupboard under the stairs. A small shed should be provided in the garden of each house for prams and bicycles.

If cooking in the future is carried on in the scullery-kitchen, the old-fashioned kitchen range is an unnecessary part of the equipment of the living-room. An inter-oven provides all that is necessary for any cooking which may be done in the living-room, and from inquiries made in the garden suburbs, which are fitted with inter-ovens, it is obvious that working women consider it quite sufficient for their needs. Bookshelves, and where possible a cupboard with glass doors for glass and crockery, should be fixtures in the living-room, and a good window seat with a box under it provides a most practical cupboard for children's toys, etc.

Working women are agreed that a parlour is a most necessary room in every house, and regard with dismay the present suggestion that it should be dispensed with. Central heating would very largely do away with the expense of the extra fire, and the contention that the parlour is only used on Sundays is becoming more and more out of date. Women, as well as their families, feel that on the possession of a parlour depends their only chance of rest, recreation, and study. This room, too, should contain a few bookshelves, and should have a cheerful outlook and a sunny aspect.

The Labour Party Inquiry has clearly proved that women are unanimous in condemning the scullery bath. Such a bath is furnished with a table top, and, being in constant use as a table, has to be cleared whenever the bath is used, and in mining and industrial districts, where men working in shifts take their bath immediately on returning home from work, the fact that the bath is in the room where the work of the house is carried on relieves the housewife of none of the labour involved at the present time. It appears to be the general view that the most convenient place for the bath is upstairs, and it is universally agreed that it must be in a separate room. The bathroom should also contain a good lavatory basin, and it should be possible to arrange a heated linen cupboard either in, or next door to, the bathroom.

Each bedroom should contain a hanging cupboard, the doors reaching from floor to ceiling. The shelf so often found on the top of bedroom cupboards is of little use, and merely adds to the labour of the house by collecting dust. The hanging cupboard could be fitted with a shelf at the bottom for boots, and with two shelves at the top for the storing of clothes. Such a cupboard in every room would dispense with the need of a wardrobe, an expensive and cumbersome piece of furniture, and would, we believe, be a great saving of labour to the housewife.

Eaves should be avoided in the building of working-class houses, as, though artistic in appearance from the outside, they militate against the comfort of the bedrooms, and make it much more difficult to obtain the requisite amount of air and space. Opinion seems to vary as to the relative advantages of sash, as against casement, windows; but among those women who prefer the casement there is a feeling that there should be some means of ventilation in the top panes, whereby air may be obtained without having to open the casement.

Tiles are most convenient in the scullery, but for the house hard wood floors are best.

There are many labour-saving devices which will be made possible with the coming of electricity, such as the electric vacuum cleaner, the electric iron, and electric cooking in all its branches, and these, the author concludes, should be introduced into working-class houses as soon as possible.

DRYBURGH ABBEY FOR THE NATION.

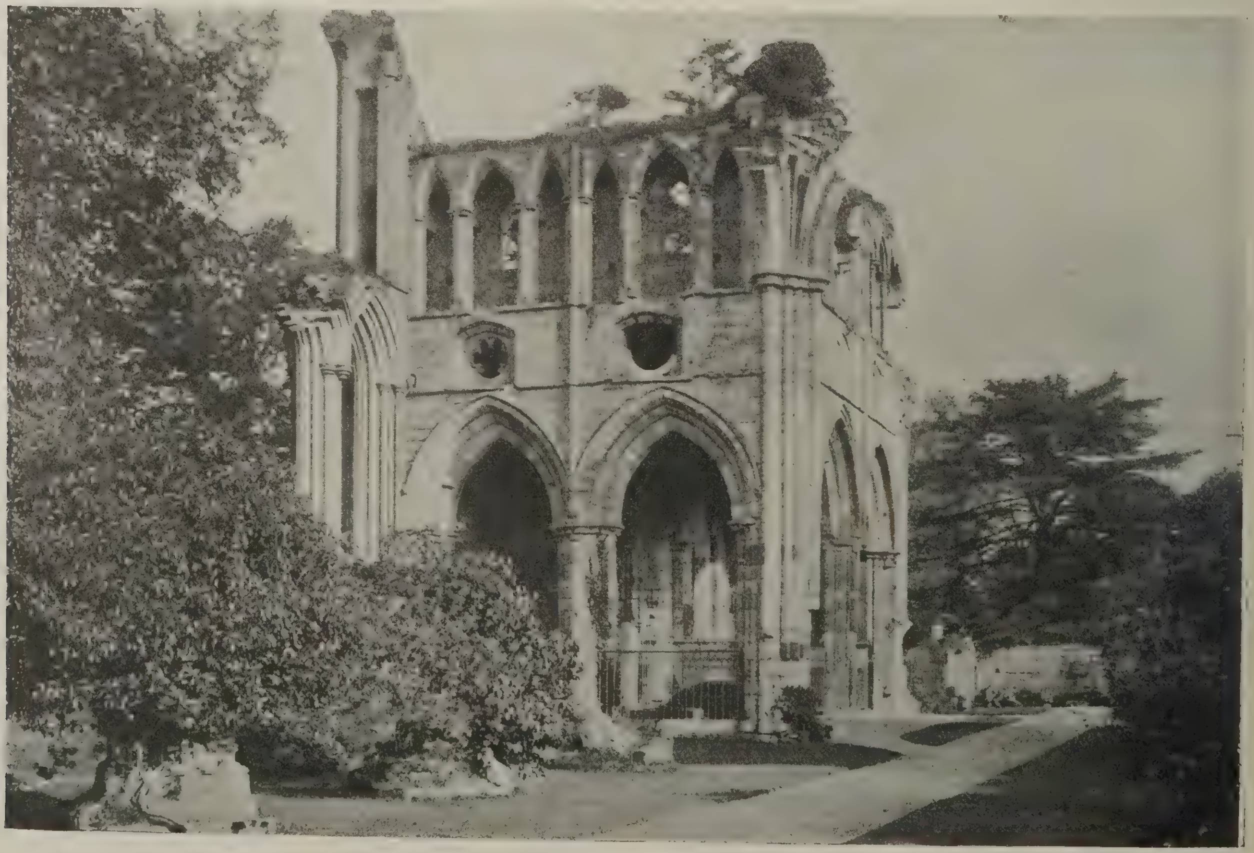
It was several months ago that the announcement was made of Lord Glenconner's generous gift of Dryburgh Abbey to the nation; but the actual ceremony of transfer did not take place until about the middle of last month, when, by the desire of the donor, the Moderators of the General Assemblies of the Church of Scotland and the United Free Church, with the Bishop of Edinburgh and the parish minister, conducted divine service on the site, in the presence of several thousands of people. Lord Glenconner, who was present at the service, formally handed over the Abbey to the nation, and it was accepted on behalf of the Board of Works by the Duke of Atholl, who said he had been authorised to convey the King's thanks to Lord Glenconner for his generous gift.

Dryburgh Abbey (the name is derived from the Gaelic Dárach-bruach, meaning "bank of oaks") is situated in south-west Berwickshire on the River Tweed, about four miles from Melrose. Originally a remarkably fine example of the Early English and Transitional Norman manner, it is now a mere fragment of picturesque ruin. On many occasions during its long career it has suffered cruelly at the hands of the despoiler. Founded in 1150, probably by David I., it was almost completely burned down by Edward II., in 1322. Partly restored by Robert the Bruce, it suffered again, in 1385, under Richard II. Great damage was done in 1544 by Bowes and Latoun; but its ruin was finally completed by the Earl of Hertford's expedition in 1545. There is a touch of irony in the fact that, shortly afterwards, the Earl was appointed by patent "Protector and Governor of the King's Realms." That he was beheaded on Tower Hill in 1552 is an omen of unpleasant augury for the Germans who are to-day battering to pieces the fair Gothic fabrics of France.

Apart from its interest as an historic ruin, Dryburgh Abbey is notable by reason of its containing the tomb of Sir Walter Scott, who was buried here on September 26, 1832. The ancient walls also shelter the remains of Lockhart, his biographer. There is something singularly appropriate about the last resting place of the poet who, in his works and in his life, did so much to revive the romance and glamour of mediæval times.

It was in 1812 that Scott realised his favourite dream of buying a "mountain farm" at Abbotsford—five miles lower down the Tweed than his cottage at Ashestiel. The place was bought for £4,000; but before the crash of his financial failure he had invested £29,000 in the purchase of additional land alone. His estate, it may be recalled, consisted of a hundred acres or more, part of which ran along the shores of the Tweed—"a beautiful river flowing broad and bright over a bed of milk-white pebbles, unless here and there where it darkened into a deep pool, overhung as yet only by birches and alders." Scott renamed the place from the adjoining ford, which was just above the confluence of the Gala with the Tweed. He chose the name Abbotsford because the land had formerly all belonged to the Abbots of Melrose, the ruin of whose beautiful abbey was visible from many parts of his property.

Melrose Abbey, of course, has already been given over to the nation; and it seems likely that other historic remains will follow. The Duke of Atholl, inspired no doubt by Lord Glenconner's admirable example, has expressed his willingness to hand over to the national custody the fine old ruins of Dunkeld Cathedral, if the Church of Scotland can find any use for them. As the Scots have a keen historical sense, there is but little fear that they will refuse this provocative challenge.



DRYBURGH ABBEY, BERWICKSHIRE, RECENTLY GIVEN TO THE NATION BY LORD GLENCONNER.

WAR WAGES, RECONSTRUCTION, AND HOUSING.

he following " supplementary state- t" has been issued by the London ter Builders and Aircraft Industries ciation :

War Wages.

nce the previous statement was issued his Association last March, the noto- s 12½ per cent. bonus has practically neated the whole building trade, and therefore again necessary to call the ntion of those who control wages, as as those who are concerned in the ding industry, to the present situation.

ll the increases in wages since the out- k of war have been made on the und that the workmen could not earn cient money to meet the increased cost ood and clothing. At the present time sixty hours' week is practically uni- al, and the skilled trades are earning cient to provide 150 per cent. more. food and clothing than before the war, lst the unskilled trades are earning cient to provide 150 per cent. more. s is irrespective of the further addition he 3s. to 6s. per week extra war allow- which some workmen enjoy through generosity of certain Government artments.

would therefore appear that the work- in the building trade are now able to the increased cost of living with some- g more than equanimity.

he weekly wage now earned in a week sixty hours is, for the skilled trades, ut £4 10s., and for the unskilled trades ut £3 10s.

he Council believes that the Govern- nt has at last reached the limit of its evolent distribution of war benefits.

he following approximate calculations demonstrate the above statements:

Skilled Trades.

r wages, fifty hours, includ- g 12½ per cent. (bonus)	£3	11	6
educt for rent and insur- nce, etc.	0	14	0
	2	17	6
litional earnings, ten hours vertime	0	18	4
	£3	15	10
-war wages, fifty hours ...	£2	7	11
educt for rent, insurance, c.	0	14	0
an increase of 70 per cent. n	£1	13	11
n increase of 120 per cent. n			

Unskilled Trades.

War wages, fifty hours, including 12½ per cent. (bonus) ...	£2	15	2
Deduct for rent and insurance, etc.	0	10	0
	2	5	2
Additional earnings, ten hours overtime	0	14	2
	£2	19	4
Pre-war wages, fifty hours ...	£1	13	4
*Deduct for rent, insurance, etc.	0	10	0
= an increase of 95 per cent. on	£1	3	4
= an increase of 150 per cent. on			

* See Trade Union evidence before Committee on Production.

Reconstruction.

econstructiton committees, self-consti- d and otherwise, are springing up like shrooms all over the country. Some of n may be doing good service, and ac- ring valuable information, but it is e important that in making their fore- s and preparations they should have able data.

he building trade, and practically y other British industry, are at present er a domination that could only find parallel in Germany. Those who were ployers are practically employers no ger, for they have virtually been deprived of any control as to the quality, quantity, or price of materials that they have to purchase, or as to the wages they pay; they are, however, submitting to this drastic domination, and propose still to submit, for the sake of their country, during the continuance of the war.

It is generally understood, however, that in certain Government Departments the officials who have so recently tasted the spirit of domination are so enamoured of it that they propose to prolong their sway after the termination of the war period, and reconstruction committees may be calculating upon such a situation.

It is necessary, therefore, to state that, whilst the spirit of loyalty will induce employers to submission until the war is ended, they intend to passively submit no longer. At the termination of the war British industry should be liberated, and all restrictions on trade withdrawn to the utmost possible extent.

It is probable, however, that in two instances some limited form of Government control may be necessary for a short period, viz.:

1. Although after the war the present extensive building operations of the Government will promptly cease (and an abundance of second-hand building material will become available), yet a few works of urgent national importance—such as shipbuilding yards—may still be continued. In such cases the Government might reasonably retain the power to commandeer building material for their own use.

2. In view of the temporary shortage of certain building material it will doubtless be necessary, in the public interest, for the Government to retain the power to fix maximum prices to prevent profiteering. In all other respects the day of peace should also be the day of the liberation of British industry from the fetters to which it has patriotically submitted during the period of national danger.

A kind of martial law practically prevails in British industries at the present time. There are abnormal times when martial law is both expedient and justifiable, but to accept martial law as a continuous institution would be to subject our own nation to the very yoke from which we are striving to free Germany at the cost of millions of men and money.

It is well, therefore, that the committees of reconstruction should clearly understand the future situation, and make their provisions accordingly, in view of the fact that the motto of British industry at the termination of the war period will be "Hands off."

Housing Schemes.

The normal building industry is threatened from another quarter. After four years or more of unavoidable paralysis for all private enterprise, it is proposed in influential quarters to deliberately prolong that calamity for a year or two more by commandeering practically all building material for enormous housing schemes at the terminatiton of the war.

It is doubtless desirable that more and better housing accommodation should be provided for the working classes, and if there is any money to spare it might well be employed in inducing municipal bodies or others, by means of subsidies, to erect workmen's dwellings; but such enterprise should take its regular place in common with all other building operations that may be contemplated. There is no justification whatever for such special priority as is demanded in the case of works of really urgent national importance.

Of course, in full view of substantial subsidies from the State, local authorities might readily offer to build houses lavishly in their own areas; this would doubtless be a popular policy for them, and it might be beneficial to the building trade, but it is no proof of urgent national need.

A great army has been drawn from British industries—all these men were housed before the war, and although there will unfortutnately be many vacant places when the war is ended, yet there are very extensive housing schemes already in course of construction. So that in view of the fact that the birth-rate will be materially diminished for years to come, the need for additional housing accommodation, though it may exist (in common with many other needs), cannot be regarded as so specially pressing and urgent that everything else must give place to it.

The national indebtedness has grown to many thousands of millions, and is increasing at an appalling rate. The vision of this portentous phenomenon has a curiously unbalancing effect on some minds, for one hears of weird and wild endeavours to spend hundreds of millions in the purchase of the liquor trade, or in the erection of hundreds of thousands of houses, etc. One can apparently become absolutely intoxicated by the contemplation of millions of money, and so run riot, losing all sense of financial stability and prudence in a reckless orgy of expenditure.

Conclusion.

The commercial and industrial energy and ability that has built up the world-wide trade of this great Empire is quite capable of reconstructing its own operations without official nursing or interference; and this will be accomplished much more rapidly and efficiently if all manufacturers, merchants, and contractors are left free from the guidance or control of Government officials, many of whom (to judge by recent revelations) are destitute of the most elementary knowledge or experience of commercial finance or administration.

By order of the Council,
S. B. DEPREE, Secretary.

NEWS ITEMS.

War Memorial for King's College, London.

As a memorial to theological students of King's College, London, who have fallen in the war their hostel will be completed and a chapel and library added.

Changes of Address.

The Foreign Trade Department and the Finance Section of the Ministry of Blockade have removed to Bridgewater House, Cleveland Square, St. James's, S.W.1.

Wages at Bristol.

At a meeting of the South-Western Centre Building Trade Conciliation Board, held at Bristol, the following settlement was reached with regard to wages: The whole of the building trade, with the exception of painters, to be paid 1s. 3d. per hour after May 25, painters 1s. 2d., labourers 1s.

Cardiff Cinemas to be Re-built.

Plans have been settled and arrangements made to re-build and re-equip two well-known cinemas in Queen Street, Cardiff, as soon as the necessary sanction has been obtained. It is claimed that these cinemas, when completed, will rank amongst the largest and most elaborate picture theatres in Europe.

New Scarborough Church Scheme.

At a meeting of the Building Committee of St. Columba's Church, Scarborough, in response to a letter from the architect of the proposed new church, Mr. Temple Moore, it was decided to proceed with part of the building of the church directly after the war, so far as funds permit. The money in hand is about £5,000, and although the cost of the building will be higher than the original estimate, the officers are anxious to have part of the new edifice set up.

Welsh War Memorials.

Welsh Councils are engaged considering schemes for war memorials, apart from the North Wales Memorial of Science Buildings at Bangor. In Abergele it is suggested that a public hall shall be erected, while in the village of Dyserth a scheme has been formulated for a village memorial hall, and towards this object Mr. Hughes, Clwyd Villas, Dyserth, has offered to give £500 on the condition that the parishioners subscribe £600 in three years. In Prestatyn the Council have a memorial scheme towards which Lord Aberconway had promised £200.

The Proposed Scottish Canal and its Effects on Housing.

Assuming that a great canal across Scotland is to be built, Captain G. S. C. Swinton, in the May issue of "The Nineteenth Century," suggests that the State should take the opportunity of creating a new industrial centre on ideal lines along its course. This work could, he claims, be started the moment the plans are made and the tools and men assembled, first by tens and then by tens of thousands. They could use huts at the beginning, but by degrees more substantial houses would grow up. They would build themselves in. "From the moment the first sod was turned nothing should be done save with the intention of its fitting at some far-off day into a completed whole, houses, roads, rails, bridges, trees planted, water laid on, drainage and all engineering problems arranged; churches and schools, cinemas, and football grounds; hourly becoming not less attractive but more attractive; nothing haphazard, all thought out ahead; and, even beyond that, wide spaces and avenues left for natural expansion, indeed for all possible requirements of a future which we cannot forecast. . . . . Fancy it, eventually, from sea to sea a white industrial city, all sanitary, all clean. A super-power station giving to everyone cheap light and heat and energy, no smoking engines, hardly a smoking chimney, not one poisoned tree or flower. Rus in Urbe! Trains, trams, lifts and cranes. And, through it all, eastward and westward, athwart this waist of Britain, the greatest ships of the world stealing silently, some of them not stopping, others disgorging or picking up merchandise."

The Architect of Aston Hall.

Commenting, in the "Birmingham Post," on the article on Aston Hall in that journal, in which it was stated that possibly Inigo Jones may have been the architect employed by Sir Thomas Holte, Mr. Benjamin Walker thinks that the claims of John Thorpe to be its designer should not be overlooked. In the collection of Thorpe's drawings now preserved in the Soane Museum are two plans of Aston Hall, and if one cannot go so far as to say that this is conclusive proof that he was the architect, nevertheless it must be admitted that it very strongly suggests it.

Reinforced Concrete Floor Test.

A remarkable test has just been carried on in Chicago in pursuance of scientists' efforts to ascertain the "point of destruction" in reinforced concrete. A building erected in 1909 for heavy printing work has now to be demolished to make way for Chicago new Union Station. The sixth floor chosen for the test was a four-way flat slab construction, designed for a live load of 250 lb. per sq. ft. Into this flat was conveyed a million and a quarter pounds of pig iron, applied in increments of approximately 200 lb. per sq. ft., until a weight of 910 lb. per sq. ft. had been reached. The time between the first and last loads covered a period of twelve days. Professor A. N. Talbot, of the University of Illinois, who conducted the experiment, estimated that a load of 1,500 lb. per sq. ft. would have been necessary to produce a collapse, and he decided it would be of greater value to watch the recovery of the floor than to cause complete collapse.

A Dublin Cement Census.

The growing demand for cement accentuates the difficulties caused by lack of transport in securing supplies to refill stock yards, and in recent days there has been some talk of the whole supplies being placed under Government control. A census just taken in Dublin shows that the supplies held by city merchants are very low, and customers are being rationed in this as in all other building materials. The matter of supply has engaged the attention of a Joint Committee of the Royal Institute of Architects (Ireland) and the Dublin Development Association which has approached the Department of Agriculture and Technical Instruction with a request for information regarding suitable areas in which the manufacture of cement might be started. The Committee also asked the Department to indicate to what extent it would be prepared to assist with expert and scientific advice, and the reply of the Department is awaited with interest. In the manufacture of cement lies another excellent opportunity for the development of an Irish industry which has been very successful on a limited scale.

CANADA'S EXPORT TRADE AF THE WAR.

The Export Association of Car Limited, was incorporated in 1915, members comprising Canadian man turers representative of every line o dustry. The object of the associa which is co-operative and non-p making, is to build up for Canada a pe nent export trade, under changed c tions brought about by the war, which be summarised as follows:

"The war has drawn together the va parts of the British Empire, uniting in a determination to establish the n sary machinery for fully developing resources at their command. The A recognise the importance of economi operation in order to prevent the er countries from regaining their forme dustrial strength, lest this might agai used as a weapon with which to a civilisation."

Upon the cessation of hostilities Car on her part, will require trade and merce to provide employment for he turned soldiers, also to enable her to her national obligations. The associ desires to assist, not only in attaining results, but also in encouraging recip trade, particularly within the Br Empire.

The following classified list repre the principal manufactures offered by association:

Metals.—Iron and steel. Brass: Ro strip, sheets, tubes and rod. Cop Tubes, wire, sheets, rods, rivets, r Nickel: Ingot metals, etc.

Railway and Rolling Stock.—Loc tives, railway cars, wagons, trucks, a springs, etc.

Construction.—Steel buildings, bri concrete and wood structures.

Machinery and Tools.—Engines, bines, cranes, chains, boilers, gas ta pipes, fans, boiler tubes, steel shaf steel billets, dredges, contractors' m nery, pumps, power presses, hydr machines, forgings, machine t corundum and grinding machi steel wire, screens, sieves, wire r galvanised and woven wire, pulley friction clutches, valves, taps, plum brass goods, tinsmiths' tools, ele batteries, conduits, telephone apparat

Hardware.—Stoves, ranges, radia door handles, butts, bolts, nails, sc staples, filters, clothes' wringers, sp shovels, brooms, brushes, glass and c broom, spade, brush and hammer han enamel, tin and copper ware, hamr axes, chisels, etc.

Wood, Bed, and Mattress Manufact —Chairs, seats, hardwood flooring, ve woodwork, interior wood fittings, shooks, dowels, wood and metal bedste spring and wire mattresses.

Rubber Goods.—Rubber tyres, p matic cushions, hose, footwear, ru gloves, heels, etc.

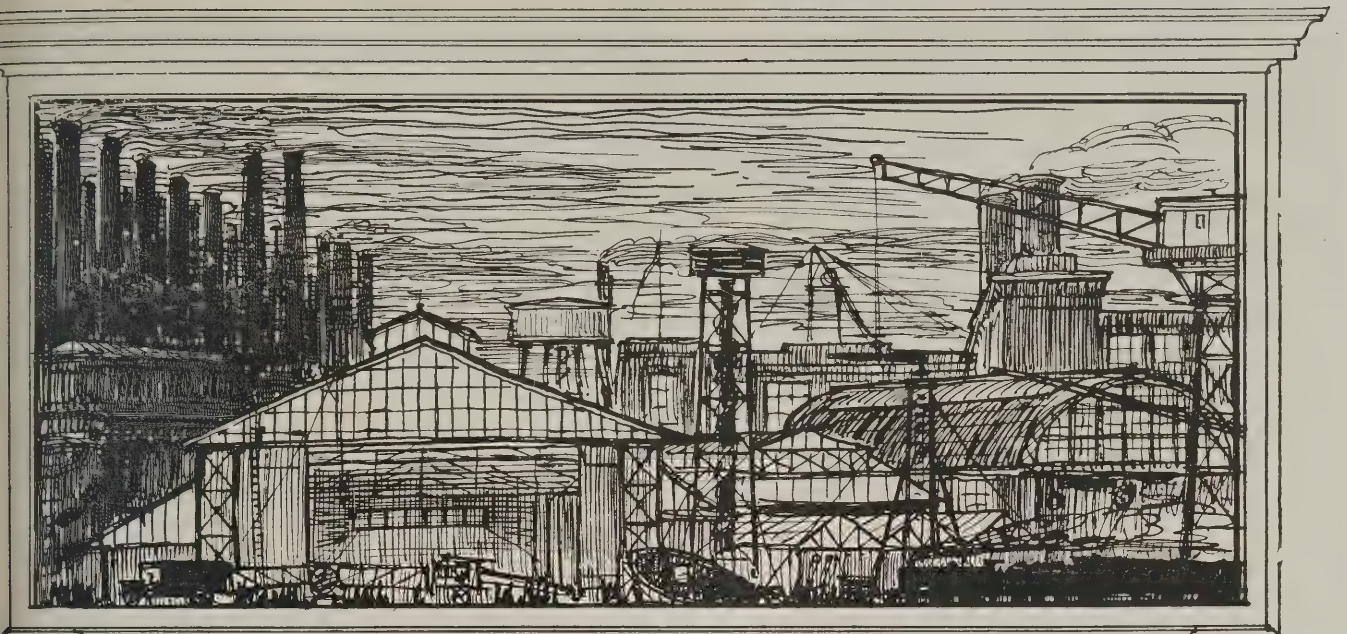
Paper and Pulp.—Book and wr paper, newsprint, wall paper, pulp.

Paints and Builders' Suppli Enamels, paints, cements, varnishes, ing paper, asbestos, insulating compou

Soft Goods.—Hosiery, cotton ducks bags, blankets, flannel and knitted g carpets, rugs, gloves, and mitts.

Agricultural implements, tractors, utensils.

All who are interested in trade wit Dominions should communicate with Export Association of Canada, Ltd., 6 Charing Cross (Trafalgar Square), don, S.W.1.



WAR·BVILDINGS·SECTION

A DEVELOPMENT OF THE POURED CONCRETE HOUSE.

NCE Mr. Thomas A. Edison "poured" his famous concrete house a few years the possibilities of this form of cheap rapid group dwelling construction been rather widely exploited, prinlly, of course, in the United States of rica. The latest and perhaps most ble instance is that of a hundred es, completed in Donora, Penn., for American Steel and Wire Co. We reuce from the "Engineering Newsord" a drawing showing plans, eleva-, and various details of construction unit house. The design adopted s to indicate that the architectural ment of reinforced concrete is a pro- still awaiting solution. It would be nctly unpleasant, we imagine, to have end one's life in these rather hideous rete boxes. But it is practical contion and not æsthetic effect with which re for the moment concerned; hence accompanying details will be studied the interesting practical suggestions they offer—suggestions that point er significantly to our own housing lem.

e houses were designed by the bie Concrete House Corporation, of on, Mass. Eight different styles of es are built, containing some four, five, and some six rooms all with a and cellar. Of these a few are built irs with party walls, and the rest are hed. The contract prices for a house plete range from $2,000 (roughly,) to $3,300 (roughly, £687). The costs de gas furnaces and cooking ranges, ric lighting and the usual improved en and bathroom equipment. The ge floor area is 26 ft. by 26 ft.

e houses are all of the box type with solid concrete walls reinforced vertion both faces and horizontally on the face with straight rods, with an interate partition wall cutting down the spans to 12 ft. to 15 ft. The floors are of the ribbed reinforced-concrete type, with the ribs or beams spanning between the outer and interior walls. These ribs are left exposed in the cellar, but in the other floors plaster board is nailed to strips left in the concrete and a finish plaster coat made. The buildings are finished at the top with a reinforced concrete cornice in which a gutter is formed, and on top of the concrete ceilings a roof is built up of spruce framing covered with asbestos slate, so that the whole exterior of the building, with the exception of this frame, the wooden window and door frames, and wood stairs, is fire-resisting.

Special Steel Forms Employed.

An important factor in the effectiveness of the work is the forms. These are of the special steel channel type. They consist of 9-in. channels set up vertically and connected together with clips and wedges passed through slotted holes in the flanges of the channels. At the corner of the building a 4-in. by 4-in. steel angle is set up, and the forms are lined up longitudinally by means of a steel channel used to form a belt course. This not only fastens the forms of the lower floor, but is bolted into the floor reinforcement and remains in place for a support for the second-storey forms, and is only stripped at the last when all the concrete is poured. The steel wall forms also support the floor forms, which are steel domes, arrangement being made by which the steel channels on which the domes are laid are bolted to the inner side of the steel wall forms. The cornice has to be built inside special wood forms supported by wooden struts reaching down to the belt-course channel form.

The cellars were excavated with a steam shovel which went down a street, taking out a strip the depth of the houses. The space between the walls of the houses is backfilled after the cellar walls are placed.

The construction of the houses proper is done in groups, to fit the number of sets of forms, which are taken down as soon as possible and moved on to the next group.

The usual method is to set the forms for one storey—wall and floor together—and then to pour the concrete for this section all at once. The progress of the job is limited by the setting of the concrete. To form, pour, and strip, each storey takes about seven days. Working at this rate, the house of two floors and cellar is completely concreted in three weeks, and with the twelve sets of forms on the job, twelve houses are concreted in this period. After this the plumbing, heating, plastering, roofing and finish are done, which take about five weeks more, so that the houses were completed at the rate of twelve in the first eight weeks and twelve every three weeks thereafter.

Method of Placing the Concrete.

In the original contract for the houses concrete was placed from a high stationary tower with a chute. This proved inefficient, because of the number of moves that had to be made to control the whole housing area. There is so small an amount of concrete in each house—125 cu. yd. on the average—and the houses are so scattered that the cost per yard of concrete was materially increased by the cost of the tower erection and construction. After a long study of different methods the contractors decided on small mobile concrete mixers, which could be placed alongside each house during concrete placing, and small hoists on each building.

The plant consists of three one-bag gasolene-driven mixers, two of which are equipped with side loaders, three circle swing derricks, two gasolene-driven hoists, which control derrick and mixer. The slag aggregate, and sand, as well as the cement, are delivered to the mixer by means of a truck which brings the material from the unloading yard.

The derrick is not used for pouring the basement and first floor, but is used for all concreting above that. It is bolted securely to the best course on one corner of the building, and the concrete is hoisted in concrete buggies or wheelbarrows. Better results have been obtained with the buggies than with the wheelbarrows. Each wheelbarrow has a hook bolted to the front end and is lifted by the derrick by means of three steel arms with rings on the end, two of which hitch to the handles and the third into the hook on the barrow, so that it is lifted completely and level on to the floor.

Organisation.

The organisation on the job is a superintendent, assistant superintendent, civil engineer, material clerk, two cost clerks, timekeeper, planning department, and typist. The form work is under supervision of one carpenter foreman, five squad "bosses," two stripping foremen, two move foremen, one reinforcing steel "boss," one finish carpentry "boss," three concrete "bosses," and one excavation "boss."

It was found advisable to have a squad "boss" in charge of the carpenters and helpers working on each house.

This "boss" has four carpenters and four helpers on the smaller houses; and on the large double houses up to seven carpenters and seven helpers. The work has been most economically done when the carpenters and helpers worked in pairs—that is, each carpenter has a helper to assist him in moving the forms, etc. It will be noticed that the reinforcing steel "boss" comes under the carpenter foremen. This has been found desirable, as the steel must be placed rapidly whenever the carpenters are ready for it. The planning department on the job lays out progress each day for the next three days and shows which foreman is to erect forms on each house and which concrete gang will pour them.

Working in Gangs.

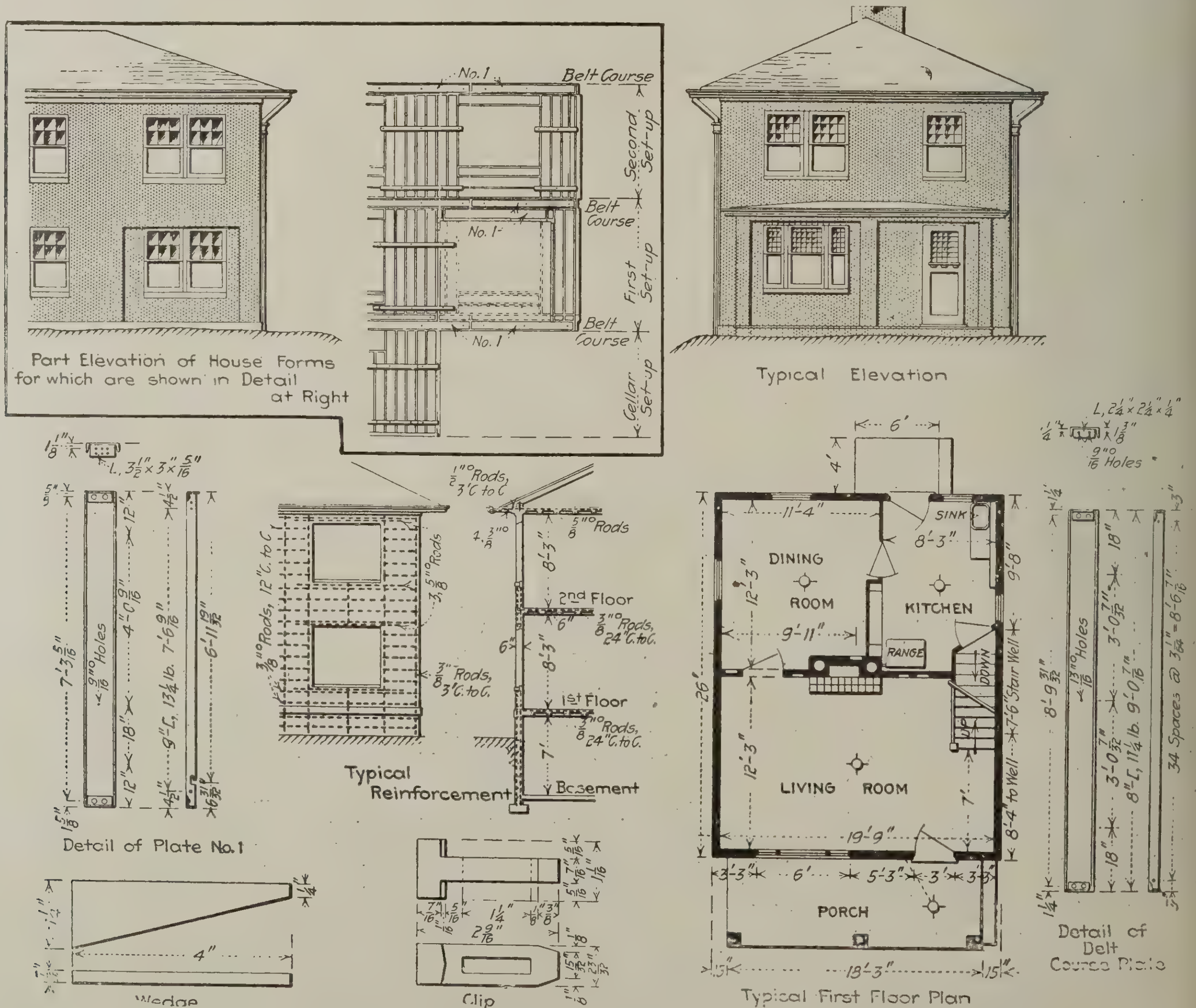
The number of men in a concrete gang varies from thirteen to fifteen, according to the type of house and the amount of concrete to be poured. The number of gangs at work at the same time is five carpenter gangs erecting forms, two concrete gangs concreting forms, two stripping gangs stripping forms, one concrete gang concreting footings, pavings, porch floors, floor steps, chimneys, etc., one digging gang, and one finish carpentry gang, doing the firring, roof framing and roof boarding, erecting door and window frames, sash doors, inside and outside trim, stair-laying, floors, etc.

On a large-type six-room house group this force has taken approximately 1½ days to erect basement walls and first-floor forms, including all boxes, window frames, flues, etc. Concreting basement walls takes about 2½ hours, and 1½ hours to pour the floor. Stripping and erecting the basement wall forms on the first storey takes one and a half to two days.
stripping of the first storey walls and er
ing the second storey and putting on
floor takes about a day and a half, but
putting on of the cornice is a slower op
tion and adds from half a day to a
Concreting the walls takes about two h
and a half, and the roof about the s
length of time.

Details of Costs.

The steel reinforcement varies from
tons in the smallest type of single ho
to three tons in the largest type of do
houses. The labour on wall steel has
to date $11.90 a ton and the floor stee
beam steel $7.50 a ton. The cost of lab
on wall forms has been $4.30 per 100 sq.
and the stripping has been $2.10.
does not include the moving of forms o
the lots, which has cost about $55
house, or about $1.25 per 100 sq. ft. wa

The quantities of concrete per ho
vary from 145 cu. yd. for the lar
double house down to 85 for the sma
single houses. This includes all walls
floors, footings, pavings, porches,
chimneys. At the present time it is c
ing about $2.25 per cu. yd. to place
concrete in the first- and second-sto
walls, which are 6-in. walls, and it c
the same for the floor slabs. The sma
houses have about 15 cu. yd. of concret
the first- or second-storey walls and
cu. yd. of concrete in the first
second floors. The roof, includ
the cornice, has about 10 cu.



A POURED CONCRETE HOUSE: PLAN, ELEVATIONS, AND CONSTRUCTIONAL DETAILS.

e cost of erecting the form work, includ- handling, stripping and cleaning, is eraging about 50c. per sq. ft. As no ber is required for the wall forms, this doubtless considerably cheaper than rk of this class could be done in wood.

n considering the prices mentioned, the ference in currency values between the countries should not be overlooked.

ARD OF TRADE REPORT ON ELECTRIC POWER SUPPLY.

arly in 1917 the President of the Board Trade appointed a Committee, with Sir hibald Williamson, Bart., M.P., as irman, "To consider and report what ps should be taken, whether by legisla- n or otherwise, to insure that there shall an adequate and economical supply of ctric power for all classes of consumers the United Kingdom, particularly in- stries which depend upon a cheap supply power for their development." The ort of that Committee, dated April 29 , has now been issued. It is signed by chairman and all the other members, o were as follows: Mr. Harry Booth, B.E., Mr. J. F. Crowley, D.Sc., Mr. nes Devonshire, Mr. Harold Dickinson, James Falconer, M.P., Mr. G. H. me, Mr. John Kemp, Mr. E. F. Vesey- ox, K.C., Mr. H. H. Law, C.B., Mr. H. Merz, the Hon. Sir Charles Par- s, K.C.B., F.R.S., Mr. William B. ith, O.B.E., Sir John Snell, Alderman F. Spencer, and Mr. A. J. Walter, K.C.

General Conclusions.

he Committee, soon after their appoint- nt, had before them the reports of the al Conservation Sub-Committee of the construction Committee, and of the ctrical Trades Committee appointed by Board of Trade. In view of the in- tigations of these Committees, and of er information, the Electric Power pply Committee unanimously came, in y, 1917, to the following general con- sions:

. That when British industry is sub- ed to the test of keen international npetition after the war, its success will end upon the adoption of the most effi- nt methods and machinery, so as to uce manufacturing costs as much as sible.

. That a highly important element in ucing manufacturing costs will be the eral extension of the use of electric er supplied at the lowest possible price, it is by largely increasing the amount power used in the industry that the rage output per head, and, as a con- uence, the wages of the worker, can be sed.

. That the present system under which pply of electricity is provided in a large nber of small areas by separate autho- es, is the result of a policy adopted at ime when the applied science of elec- al engineering was in its infancy, and ncompatible with anything that can be accepted as a technically sound tem.

. That the interconnection of existing trical supply stations, recommended by Board of Trade in their letter of y 25, 1916, however desirable in itself, not alone meet the requirements of the ation.

Jhat a comprehensive system for the eration of electricity, and, where neces- , re-organising its supply, should be blished as soon as possible.

The National Advantages.

The report concludes by summing up the national advantages of the Committee's recommendations in the following terms:

The economy in fuel which would result from combined generation of electricity has been dealt with at length in the report of the Coal Conservation Sub-Committee. They say: "If the coal so saved were used for the production of further power it would be possible to generate continuously not less than 15,000,000 horse-power, which would more than compensate for the absence of large water powers in this country and admit of the manufacture here of many products which are at present only made in America and on the Continent."

The Electrical Trades Committee in their report state that the national advantages to be gained from a well planned scheme of reconstruction will be inestimable. They say: "The items which are capable of reasonable calculation, such as saving in fuel, reduction in factory costs, and increased output, will together represent not less than £100,000,000 per annum," and again, "witnesses of high authority estimate the loss incurred by the nation through failure to take full advantage of electrical progress at not less than £100,000,000 a year, a loss preventable by concentrating generation under improved administration." Any such advantages as are indicated by these large figures must be regarded as highly important, having in view the financial situation which will be created by the great cost of the war, and the international competition which may be expected at its conclusion. We may draw attention to another aspect of the matter. We believe that as a result of the improvements we recommend, and the development which may be expected to proceed from them, the use of electricity for domestic purposes, such as lighting, heating, cooking, and small power, will greatly increase. The cumulative effect of a really cheap supply of electricity, on town conditions in particular, would be most marked. The saving of labour would be great, while the reduction of air pollution by smoke would result in a lower death rate from bronchial diseases and phthisis. The Coal Conservation Sub-Committee quote a statement to the effect that it has been estimated that the measurable damage done to property in Manchester and Salford alone, by smoke, amounts to nearly £1,000,000 per annum. This is equivalent to about £1 per head of the population. It is also stated that the results of a recent similar inquiry in Pittsburg, U.S.A., show a very much larger proportionate figure. Even allowing that only a portion of smoke damage could be avoided, the saving would be large. No doubt changed conditions would only come gradually, but we look forward with confidence to the advantages which a cheap supply of electricity will bring to both the health and the convenience of the community.

In view of the fact that the numerous investigations of the Reconstruction Committees, and the proposals made by them, must largely depend for their practical effect upon the supply of cheap power, we would in conclusion emphasise the importance of initiating the necessary legislation with the least possible delay.

We hope to print in full, in later issues, some of the report's principal recommendations, as it is evident that this report is likely to have a far-reaching effect on the economic development of the nation's commerce and industry.

HOUSING AND FINANCE.

At the annual general meeting of City and West End Properties, Ltd., Mr. J. H. Podmore, managing director, said: The war has taught us many lessons, not the least important being justice to the producer. It seems to me that this was lost sight of in the Rents Restriction Act. As property owners it must be right to defend our interests and call attention to the mistakes in this Bill. The Government has realised that cost is an essential factor governing both production and retail price, and it has tried to secure the one by protecting the other in the case of many urgent commodities. Property and labour are closely connected, and to prevent the landlord applying the demonstrated fact as to the costs of a producer to the protection of property the Government brings forward this Act. It deals, for well-known reasons, with cottages and flats of low rental value, cases where the landlord pays all rates and does all repairs, and provides that the only increase in rents shall be such as to cover any increase in rates or be represented by 6 per cent. on any outlay of a structural nature. The intention of this last clause is obvious, but the practical man knows that additions are rateable and have to be maintained, so that the actual percentage allowed by the clause is no inducement to a landlord to meet the wishes of a tenant. The omission to allow any increased payment to cover the increased cost of repairs and renewals is another error which cannot be defended on any equitable ground. It reduces the net annual value of both flat and cottage, and this at a time when there is a shortage in this class of property so pronounced that local authorities have had to borrow money to erect buildings for local needs. Might not private enterprise provide cottages if they were reasonably good investments? If they are undesirable and bad securities it must be due to financial troubles. Is this the time to make them less remunerative to the producer? Would it not be sound policy to try to encourage production and correct the financial faults? It is quite clear that the Act adds to them in every way, for it encourages the landlord to leave his cottage dirty; it fines him should he renew a broken range or other fitting, or if he does anything to add to the comfort and convenience of the tenant. Perhaps, however, the effect of the Act was not realised. It is said the Government contemplates new powers for the erection of cottages to remedy one of the great evils of the day. The Act victimises the man who has done something to this end, and, not content, proposes to cover up the effect by a scheme which would place the tenants in a position of the partly destitute living in buildings erected at the public cost. It was recently stated that the actual rent paid by cottagers was in a large number of cases 3s. a week, landlord paying rates and doing repairs. Does that sound inviting? The authorities know that a cottage cannot be built and let on existing conditions on an economic basis at less than from 5s. to 7s. a week. The landlord, who is providing an urgent need at one-half its economic value, is picked out by the authorities as the one man in the country to be denied the right granted to all other producers of increasing his charges to meet his additional costs—the costs of those repairs essential to the comfort of the very men the Government desires to protect. Justice to the producer might extend even to a landlord, and this extension would have had the additional merit of being a true policy.

THE RECONSTRUCTION DEPARTMENT'S INQUIRY AS TO BUILDING PROSPECTS.

At a meeting of Bridlington Town Council, the Town Clerk read a letter from the Reconstruction Department asking the Council to indicate what might be the necessities of the Council in respect of building and other materials. A councillor thought it would be mere guesswork and waste of time. He characterised it as "a superfluity of naughtiness." Another councillor, however, moved that the matter be referred to the chairmen of committees, and this course was taken.

The Committee of the Ministry of Reconstruction which is making an inquiry throughout the country from local authorities, builders, architects, and others as to the probable demand for, and supply of, building materials during the reconstruction period two years after the war, has extended until July 1 the date upon which the inquiry forms already sent out are to be returned. Any authority, person, or firm contemplating building works immediately after the war who has not received one of the Committee's forms of inquiry should apply either directly or through an architect.

In cases where only sketch plans have been prepared, and the preparation of complete plans and bills of quantities has been postponed until after the cessation of hostilities, it would appear that no materials will be required until at least six months after the war, and as regards these works it will suffice if the undermentioned particulars are furnished: County, description of building, estimated pre-war value of the work, estimated date of commencement of building, estimated duration of contract.

Materials needed for repairs, maintenance, etc., form the subject of a special inquiry, and particulars of these are not needed at present. In other matters, however, it is hoped that every effort will be made to complete forms of inquiry by the date specified. Unless the Committee is made fully aware of the prospective needs of consumers, it will not be possible to estimate how far available supplies will meet the demand, and its efforts to secure co-ordination may thus prove unsuccessful.

A WOMAN'S HOUSE.

Under this heading Mrs. Beatrice Heron-Maxwell contributed to last Friday's "Daily Mail" her ideas on how a home should be planned and fitted.

Inside warmth is assured by a small central furnace refilled with scanty trouble and cheapest fuel which sends constant hot water across the hall and up the staircase wall to the bedrooms and bathroom.

Each bedroom has its fitted basin with hot and cold taps; the interest on their installation adding little to the rent and rendering washstands unnecessary.

Three central taps at intervals turn the hot-water circuit off from any portion of the house if desired.

The windows are of the casement type, opening inwards, no athletic feats being needed for cleaning them. A paned flap runs above them, opening inwards for air at night.

The walls have neither cornice nor skirting; they curve (like the modern saucepan interior which a woman's sense devised) gently at the top to the ceiling, free of moulding—that harbour for dust and insects—and slope again at the base to join the floor. They can be dusted or washed to perfect cleanliness.

The floorboard crevices are filled up, admitting neither flue nor draught.

The doors fit properly and have morticed bolts; the lights turn on at the door and over the bed, from which the bells and the bolts can be manipulated by simple contrivances.

The kitchen sink and copper, fed with hot water from the central stove, have wrist taps and the same curving walls. There is a drying cupboard over the stove and a little coal-range and gas-cooker.

The sitting-rooms have wide bay windows of four casements and fitted wooden window seats for removable cushions.

This is the foundation scheme, and, furnished by the same woman's wit, the house lends itself to artistic comfort and the elimination of every toilsome item in domestic work.

TRADE AND CRAFT.

A New "Floodlight" Projector.

An improved form of light projector, employing the standard types of half-watt or gas-filled lamps for use in what is known as "floodlighting" work, has been lately designed for the English market by the British Thomson-Houston Company's Illuminating Engineering Department. With such a projector, operating with all the simplicity of the incandescent electric lamp, a flood of light can be thrown over any area, such as a works yard, shipyard, or upon any surface such as the front of a building or the side of a ship under construction in the docks.

There are very many practical applications for such projectors—they are particularly useful for night construction work where contractors are engaged in rushing repairs or construction work of buildings, bridges, ships, etc. For such work this projector, on account of its adaptability, convenience of mounting and employment, and its ability to illuminate objects at a considerable distance, is of special value to engineers and contractors. Again, in the protection of property, in patrol and prison work, watchmen and sentries are enabled to safeguard property and to cover a wide area of observation at night with something of the effectiveness of daylight conditions.

Floodlighting is also employed for night work at shipyards and docks, railway stations, goods yards, quarries, fire brigade and salvage work. Floodlight applications have been made on an extended scale in the United States and Canada since the introduction of the half-watt type incandescent lamps. While the military conditions incident to the war have restricted many applications of such lighting in Great Britain, there still exists a considerable field for their use ev
under war conditions.

THE B.T.H. "FLOODLIGHT" PROJECTOR.

As shown in the accompanying illustr
tion, the projector consists of a body
casing and a supporting stand or brack
The projector is suitable for standa
patterns of half-watt type lamps in 3
500, and 1,000-watt sizes, or can be,
desired, supplied to take even smal
sizes of these lamps. The lampholder
so supported as to permit of an easy, in
pendent adjustment laterally, transverse
and vertically, so that the electric la
can be accurately focussed in the reflect

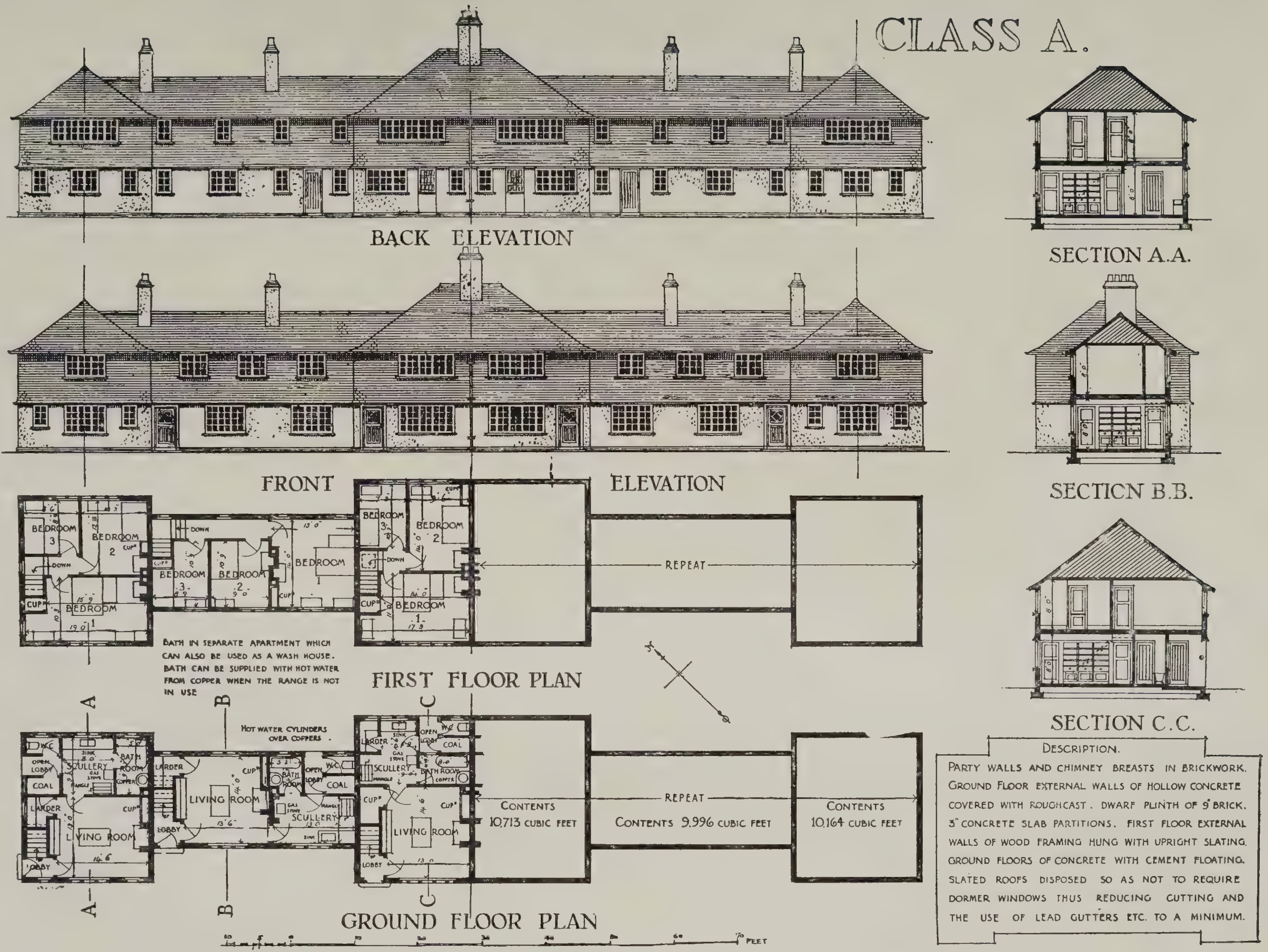
When the lamp is correctly adjusted
focus, a powerful beam, giving a div
gence of from 5 to 15 deg. on each s
of the centre, is obtained with a maxim
candle power of 50 to 100 times that of
lamp employed.

The reflector is a silver-plated mirror
parabolic form, copper backed, a
covered with a special enamel stoved
It is secured to the back of the projector
means of steel springs, affording a r
lient support and minimising any dan
of breakage. There are no moving pa
or mechanism in the lamp proper, and
only adjustment is simply the mechani
focussing of the lamp through the mo
ment of the lampholder.

Copies of the B.T.H. price
(No. 10482) containing detailed particul
of the apparatus may be obtained on ap
cation to the Publication Departmen
the Company at Mazda House, 77, Up
Thames Street, London, E.C.

British Waterproofed Cement in Afri

As an illustration of the far-reachi
effects of advertising, we have a report t
Pudlo, the waterproofing powder, has be
used in British East Africa on the la
new soda works on Lake Magndi, in
concrete dams at Nakuru, and in work
far remote as Uganda.



Bath in separate apartment which can also be used as a wash house. Bath can be supplied with hot water from copper when the range is not in use

DESCRIPTION.

Party walls and chimney breasts in brickwork. Ground floor external walls of hollow concrete covered with roughcast. Dwarf plinth of 9" brick. 3" concrete slab partitions. First floor external walls of wood framing hung with upright slating. Ground floors of concrete with cement floating. Slated roofs disposed so as not to require dormer windows thus reducing cutting and the use of lead gutters etc. to a minimum.

CURRENT ARCHITECTURE (SERIES V.). XXXII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH-WESTERN AREA): FIRST-PREMIATED DESIGN, CLASS A.

THORNELY, F.R.I.B.A., AND ROOKE, ARCHITECTS.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

B

GROUND FLOOR EXTERNAL WALLS OF HOLLOW CONCRETE BLOCKS ON BRICK PLINTH IN LOCALITIES WHERE CHEAPER THAN BRICK. IF BRICK IS ADOPTED THE WALLS TO HAVE A TWO INCH CAVITY. PARTY WALLS ETC IN BRICKWORK. PARTITIONS OF 2½" CONCRETE SLABS. FIRST FLOOR EXTERNAL WALLS OF WOOD FRAMING AND VERTICAL SLATING. ALL ROOFS COVERED WITH SMALL SLATES. LOWER FLOORS OF CONCRETE WITH PORTLAND CEMENT RENDERING. UPPER FLOORS OF WOOD JOISTS AND BOARDING. WINDOWS WOOD CASEMENTS OPENING OUTWARDS.

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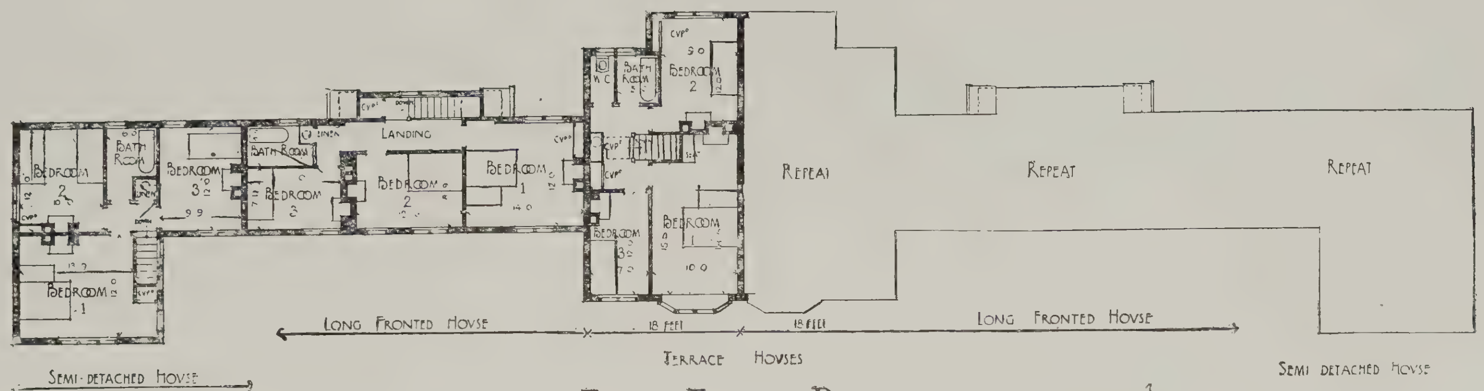
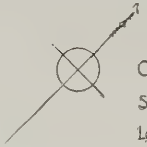


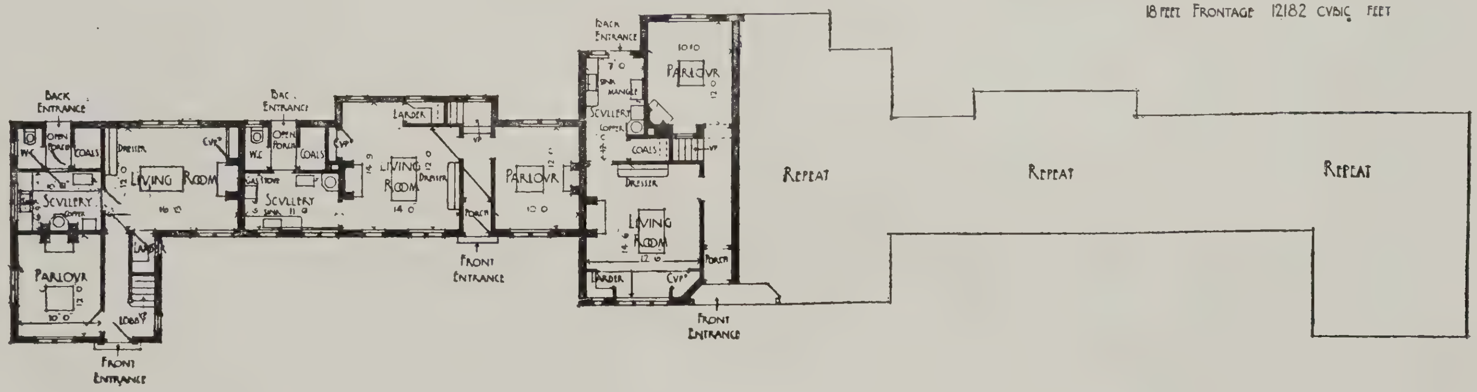
FIRST FLOOR PLAN

SCALE 8 FEET TO 1 INCH



CUBIC CONTENTS OF COTTAGES

SEMI-DETACHED	11910	CUBIC FEET
LONG FRONTAGE	11297	CUBIC FEET
18 FEET FRONTAGE	12182	CUBIC FEET



GROUND FLOOR PLAN

CURRENT ARCHITECTURE (SERIES V.). XXXIII.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH-WESTERN AREA): FIRST-PREMIATED DESIGN. CLASS B.

THORNELY, F.R.I.B.A., AND ROOKE, ARCHITECTS.

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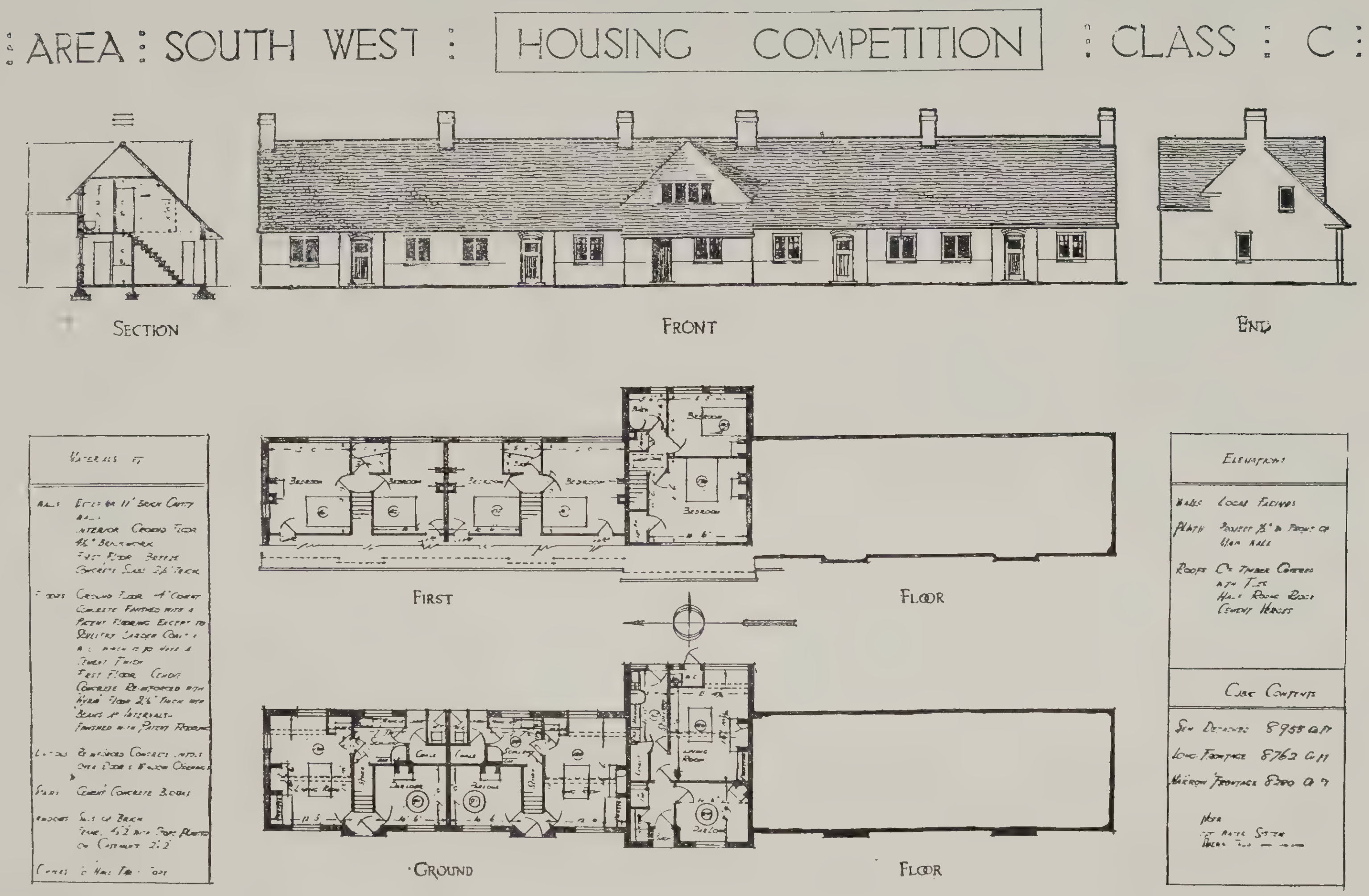
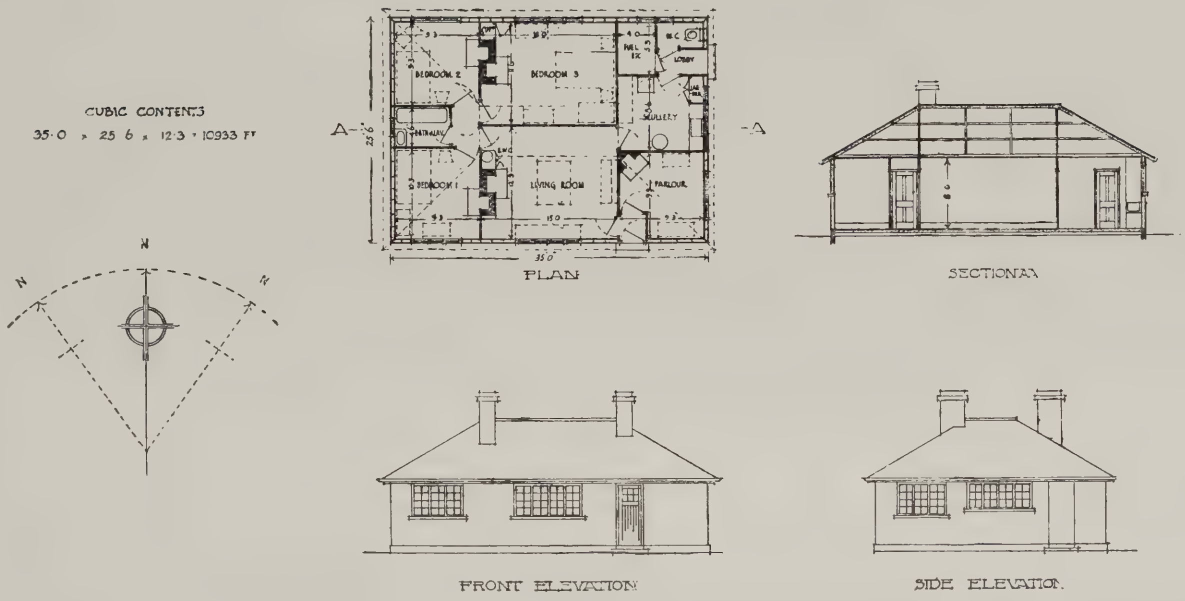

AREA : SOUTH WEST : HOUSING COMPETITION : CLASS : C :
SECTION
FRONT
END
FIRST FLOOR
GROUND FLOOR
Bedroom
Living Room
Parlour
Materials
Exterior 11" Brick Cavity walls
Interior Ground Floor 4½" Brickwork
First Floor Breeze Concrete Slabs 2½" thick
Ground Floor 4" Cement Concrete finished with a Patent Flooring
First Floor Cement Concrete Reinforced
Reinforced Concrete Lintols
Cement Concrete Blocks
Elevations
Walls Local Facings
Plinth Project ½" in front of main wall
Roofs Cut timber covered with tiles
Half round ridge
Cement verges
Cube Contents
Semi Detached 8958 cu ft
Long Frontage 8762 cu ft
Narrow Frontage 8280 cu ft
Note

CURRENT ARCHITECTURE (SERIES V.). XXXIV.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH-WESTERN AREA): FIRST-PREMIATED DESIGN. CLASS C.

W. A GREENEN, ARCHITECT.

LIBRARY
OF THE

RIBA COTTAGE COMPETITION - SOUTH-WEST AREA - CLASS D



NOTES-OF-MATERIALS

EXTERNAL PARTITIONS TO HAVE BRICK OR CEMENT CONCRETE BASE UP TO FLOOR LEVEL - ABOVE THIS TIMBER OR METAL FRAMING WITH EXPANDED METAL OR HY-RIB LATHING EACH SIDE CEMENT STUCCOED OUTSIDE WITH ROUGH CAST FINISH & PLASTERED INSIDE

CHIMNEY FLUES OF CAST CONCRETE BLOCKS WITH 8" × 8" OPENINGS

INTERNAL PARTITIONS OF CONCRETE BLOCKS. (TOTAL THICKNESS WITH PLASTERING 3 INCHES)

FLOORS OF CEMENT CONCRETE WITH CEMENT OR TILED FINISH IN SCULLERY AND OFFICES - FUEL STORE 6" BELOW GENERAL FLOOR LEVEL - LIVING ROOM WOOD BLOCK OR LINOLEUM FINISH BEDROOMS SIMILAR

ROOFS OF LIGHT STEEL FRAMING AND CEMENT BREEZE CONCRETE FILLING WITH EXPANDED METAL CORE. SLOPING ROOFS BATTENED EXTERNALLY AND LAID WITH ORDINARY TILES OR SLATES, OR ASBESTOS SUBSTITUTES FLAT ROOF LAID WITH VULCANITE.

CEILINGS OF EXPANDED METAL SECURED TO STEEL TIES OF ROOF AND PLASTERED

WINDOWS SOLID WOOD FRAMES WITH TEAK SILLS AND STEEL CASEMENTS, OR BOTH FRAMES AND CASEMENTS OF STEEL.

HEATING ETC COMBINED RANGE AND FIREGRATE IN THE LIVING ROOM WITH HOT WATER BOILER BEHIND SAME CYLINDER AND DRYING CUPBOARD AT SIDE OF LIVING ROOM FIREPLACE HOT WATER LAID ON FROM CYLINDER TO BATH LAVATORY, SCULLERY SINK AND WASHING BOILER THE LATTER TO BE ALSO GAS HEATED AND FITTED WITH WASTE GAS STOVE IN SCULLERY

SCALE · $\frac{1}{8}$ INCH TO THE FOOT

CURRENT ARCHITECTURE (SERIES V.). XXXV.—R.I.B.A. NATIONAL HOUSING COMPETITIONS (SOUTH-WESTERN AREA): FIRST-PREMIATED DESIGN, CLASS D.

CHARLES COLE, ARCHITECT.

ARB

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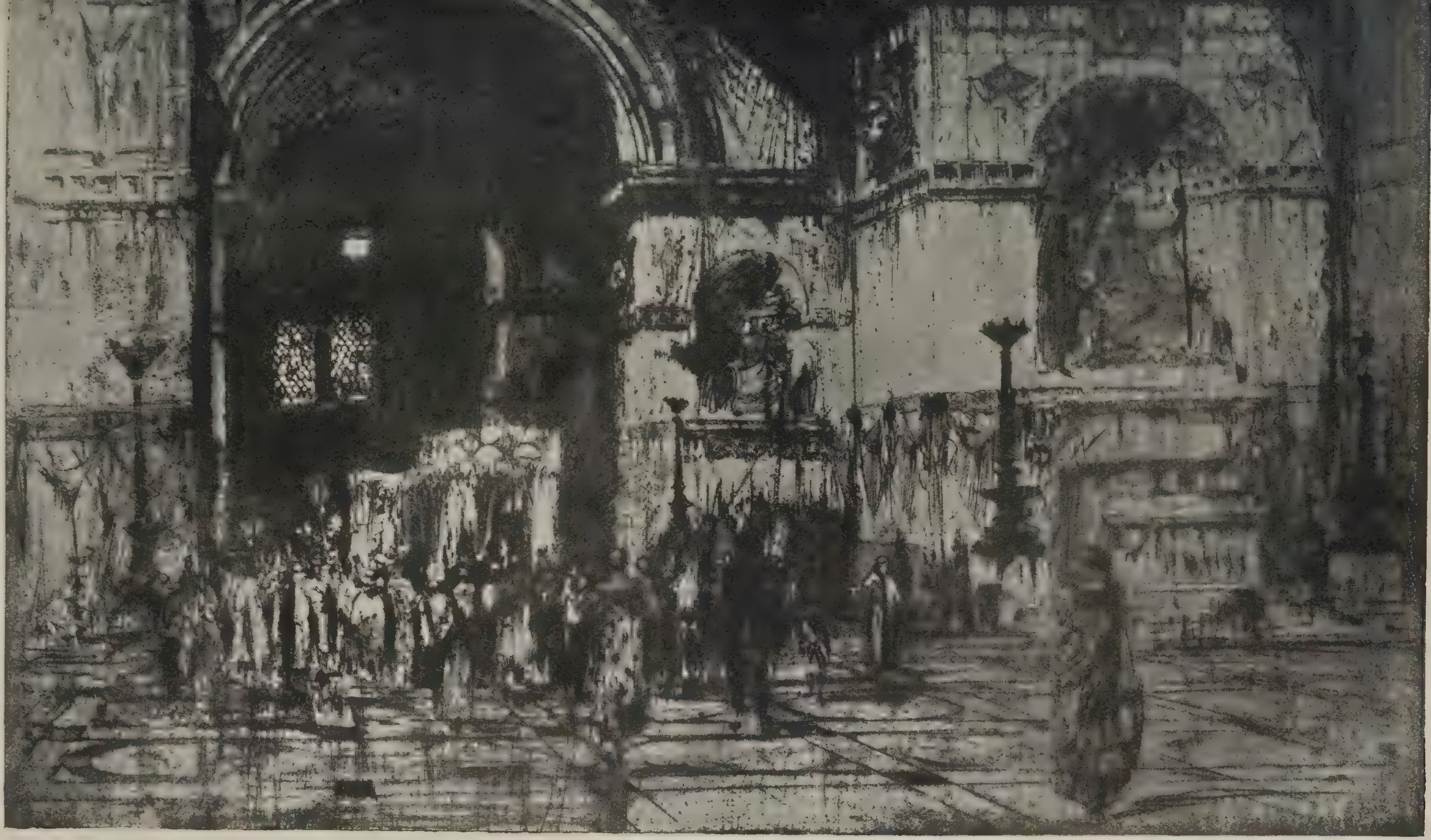
JUL 1 5 1914



ARCHITECTURAL DRAWINGS AND SKETCHES. XX.—A COURT OF JUSTICE (AFTER THE BASILICA OF CONSTANTINE AT ROME).

(*From the Etching by William Walcot.*)

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THE ARCHITECTS' AND BUILDERS' JOURNAL.

JUNE 19, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1224.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restrictions on paper supplies, all elements of waste must be rigorously excluded. Our readers, we are sure, will gladly assist in promoting this object, which is an item in national economy. They can co-operate with us effectually in either of two ways—(1) *By placing a direct subscription for this Journal, or* (2) *by placing with a newsagent an order for its regular delivery.*

The Government Paper Controller has now forbidden the return of unsold copies of newspapers and periodicals to the publishers. Newsagents are therefore now keenly interested in the elimination of the casual customer—and are morally compelled to obtain only those papers that have been previously ordered. This fresh development strongly emphasises the foregoing advice to place a direct subscription or to give a newsagent a standing order for regular delivery.

ARTISTS are sensitive souls, and criticism agonises them. To spare them this inconvenience, much wholesome and instructive criticism is mercifully withheld, and so the artist misses the tonic draughts that would brace him to do better, and the public are left to wallow in their ignorance that they are surrounded by unrebuked outrages on good form. Adverse criticism, if made at all, is as often as not conveyed by innuendo. Symbolical of it is the action of the authorities in protecting with sandbags Le Sœur's statue of Charles the First, and leaving the others to take their chance. Generally speaking, the male critic of to-day is too tender-hearted. He will shortly resign the business to the ladies, who, if one may judge from their recent incursions into this domain, will deal with the subject more faithfully It is not only that they are very caustic about cupboards and similar unconsidered trifles: they are essaying the higher criticism, and in most instances they are not handicapped by the instinctive chivalry that prompts a man to walk warily where professional interests are concerned. Often it can be said of the lady critic that—to borrow a phrase from an Elizabethan dramatist—"She hath a tongue with a tang," and she employs it without scruple. Here is a mild specimen. We would rather not say to what building it refers, and consequently we do not give the name of the writer: "This building purports to embody some wonderful principles of construction. A visit revealed an ugly, unscientific, and incredintable [*sic*] mixture of iron bars, of terra-cotta lumber, of cement, and of grey masonry, which had to have the liberal assistance of the carpenter and his centering to produce anything like form and cohesion." Concerning one of the domes of this building, she remarks: "Here mock ribs are introduced, breaking up the continuity of what little bond had been obtained by the placing of the terra-cotta lumber blocks; these ribs consist of a lot of iron bars surrounded by concrete. The absurdity of the whole thing, and the want of technical knowledge of thrusts, is exhibited in this construction, for these members are, or should be, purely compressive. Had the terra-cotta lumber blocks gone round in continuous rings, more than ample strength would have been obtained, but what should have been rings are broken into for the introduction of the ribs." Then she goes on to pitiless dissection of the building. A chapel "has some ridiculous features, and the first impression it gives one is of a motor hearse with the usual paraphernalia stuck in round the sides. These, it may be presumed, are mock finials, but are prodigiously out of proportion. A closer study would lead one to think that the thing was a Baptist chapel with provision on the four corners of large water tanks formed to collect the roof catchment. . . . The steeple is another ridiculous affair. . . ." And so on. Whether or not the lady is justified of her severity we are hardly in a position to judge, the building being in Australia. Our main object in quoting her is to show the sort of criticism that architects may expect when ladies provide it. Few of them will possess the technical equipment and the trenchant style that render this lady so formidable; but all will speak as positively and as unsparingly, if with less knowledge and brilliancy.

* * * *

Economy of traction, enforced on us in war-time, should afterwards be maintained, with but little less stringency, as an important part of the policy of making the most of all our national resources. Mr. Philip Tilden, in an interview with a representative of the "Observer" who was seeking light on "the right way of building a house," deprecated the wasteful practice of carrying building materials from one side of England to another. Brick is sent to a stone country, stone to a brick country. He probably thought it not worth while to mention what would happen when both materials were simultaneously unloaded half-way across. Perhaps that elusive entity the "half-way house" would materialise. It might look something like Mr. Norman Shaw's New Scotland Yard buildings, which, begun in stone and finished in brick, suggest an insufficient supply of either material to make a homogeneous job. An A.A. "chestnut" is to the effect that the footings have been extended to harmonise with the scale to which policemen's feet are built. Mr. Tilden suggests that there should be "an architectural survey of England, dividing her into architectural districts corresponding to the supply of local materials"; but surely geological maps already existing should fulfil this purpose. He holds very strongly that local materials should always be used, not only because they are congruous, but to prevent waste of energy in traction. Economy of road and rail traffic would encourage the development of local industries, the working of local stone and quarries and brickfields, and consequently the more equal distribution of wealth and labour throughout the country. Local style would be developed, local tradition perpetuated, local charm preserved, mongrelism averted; labour would not need to desert one district to the congestion of another, local talent would be developed, and the *manes* of William Morris would rejoice.

* * * *

Last week we commented on a paper in which Professor Brame described to the Society of Chemical Industry some interesting investigations he had made into cases of lead-corrosion. In a further paper, Professor Brame detailed his analysis of a thick black crust which had almost completely blocked-up the fine carving on the underside of the cornice of a Portland-stone building some two hundred years old. He found that the crust consisted mainly of calcium sulphate. "The acid rainwater collecting on the upper flat side of the cornice, which was some 2 ft. 2 in. wide, had slowly percolated through the stone, decomposing the calcium carbonate with formation of the sulphate, which was deposited by evaporation on the under side, thus bearing out the correctness of the general statement of the action of rainwater containing traces of oxides of sulphur, resulting from the coal consumed in large towns." Professor Brame arrives tentatively at the conclusion that slightly acid rainwater percolating slowly through the stone had brought about slow decomposition of certain silicates, and the silica was left uncombined in admixture with the calcium sulphate, which formed more than eighty per cent. of the crust. This leaflet, a copy of which has been courteously sent to us by the author, is instructive by what it implies as well as by its contents. For how many centuries have builders noted such appearances as he describes without attempting anything more than a purely superficial account of them! Until quite recently, it never seems to have occurred to anybody that such commonplace experiences were worth investigating scientifically. That lead corrodes and that stone decays were regarded as natural phenomena, the effects of time and weather, or, as in the instances cited, of putting lead in contact with oak or with mortar. Professor Brame's leaflet may be taken as a portent that this field of inquiry is no longer being neglected, and, moreover, that the results of investigation are being rendered easily accessible to those whom they most intimately concern. It is a welcome sign that science is enlarging its borders, with respect both to research and to the publication of results.

* * * *

To pretend surprise at the rejection by the Government of Colonel Royd's motion for the repeal of the Land Duties would be mere affectation. It was foredoomed to failure because, short as it was and simple though it seemed, it raised many complicated and far-reaching issues, which, we fear, must be held over until peace brings a more convenient opportunity for threshing them out. It is unfortunate that land problems should be so strongly charged with political animus that it is impossible to get them discussed or settled on their merits, or to accept without considerable discount the denunciation of recent measures, while absolute silence is maintained about archaic evils that are far worse—for example, the difficulties of transfer that make the buying or selling of even small parcels of land an experience to be avoided. In France, where there are no great estates, and where small holdings are the rule, transfer is cheap and easy. In Britain, a leaseholder is promptly penalised for any appreciable improvements he may make; whereas, strange as it may seem to us in this topsy-turvy country, the French peasant proprietor grows the richer for his improvements, for he can sell either his farm or its fruits at correspondingly enhanced profit, and many a labourer with a knack of successfully cobbling poor holdings has made a fortune by buying, improving, and selling at a profit, one farm after another. Small holdings are likely to be the rule in England after the war; and upon this probability the architect as well as the estate agent, property owner, builder, should lay his dispositions: for is not the land, and are not the conditions of its tenure, the basis of the social order? And the architect, in particular, must keep in close touch with all social movements. If he does not, how shall he give them adequate scope and expression in work to which all human affairs seem tributary? We note with pleasure the many indications that architects are addressing themselves with increasing interest to the study of basic economic factors.

* * * *

An economic aspect of housing which of late has not been kept sufficiently in view is that a house is not an ordinary article of commerce, to be had cheaply and easily by the ordinary means of exchange and barter. Its immobility, and the mobility of its tenants, put the latter at an obvious disadvantage, and at the same time put house or land in a very different category from mobile property. Yet the objection to national housing is largely, if not exclusively, based on an assumption that houses can be bought, sold, or hired, like mobile commodities, and that therefore State subsidies for houses may by-and-bye be followed by a demand for State aid for feeding and clothing the workers. There is no real parallelism between housing and matters that, like feeding and clothing, are easily controllable personally. He who would rent a house or a lodging must put up with any sort of building he can get. His choice is far more strictly limited than it is in any matter of exchange and barter. This is why housing has been, from time immemorial, under some sort of central or collective control, and why the State must have a hand in regulating that control. When the State relaxes its vigilance, housing conditions become deplorable, as—to take an extreme case, they were about the year 1837, when Dr. Arnott and Dr. Southwood Smith were appointed to report on the sanitary needs of certain parts of London. They made heart-breaking revelations of the state of affairs that supervenes on national neglect. In one quarter, people were herded in "dwellings of wood, inferior to common cattle-sheds," with consequences—set forth in grim detail in the report—that are too horrible to recapitulate. Though "Nature bring not back the mastodon, nor we those times," it cannot be denied that we might easily slip back towards them but for State aid and encouragement to press forward.

* * * *

Degrees in commerce are in contemplation by London University, and the Lord Mayor of London promised, last week, his cordial co-operation in the movement. There is nothing to be said against the effort of a university to sort out its students into more definite sub-divisions, except that it perhaps tends to lower the sentimental and commercial value of degrees by multiplying them to excess. Taking "commercial value" to mean value as a passport to employment or emolument, value as an asset, it must be acknowledged that this is already at a low enough ebb. A good degree will enable its possessor to obtain an unremunerative scholastic post, and, in the case of an architect or other professional man, an Oxford or Cambridge degree is a valuable hall-mark. Outside the professions, however, it is too commonly regarded rather as a disqualification. Be the reason what it may, business men sniff with suspicion at any evidence of the higher education. They think a graduate "an overgrown schoolboy," beginning practical life about seven years too late. This general distrust of education, whether founded on proofs of the inefficiency of our educational system or merely on ignorant prejudice, is operating disastrously on the Education Bill, which is being whittled down to nothingness, in spite of Mr. Fisher's admonition that the thought that had been borne in upon him by the experience of this war was that unless we took very earnest steps to improve our educational system we should come to grief.

HERE AND THERE.

ON June 15 there was a pilgrimage of archæologists to the tomb of John Stow in the church of St. Andrew Undershaft, Leadenhall Street. They "put a new quill pen in Stow's right hand." It was a quaint thing to do, and there is about this simple action a tender grace of sentiment which is at the heart of archæology. A touch of sentiment, sympathetic to "the tender grace of a day that is dead," is, I imagine, much of a stimulus to the genuine archæologist, whether he delves patiently in dusty archives, where paper and parchment moulder, or whether he digs laboriously with pick and spade for Egyptian, Aztec, Greek, Roman, or British remains. Fame, and even wealth, may, in rare instances reward his labours, but what really animates them is his curiosity to find out as much as he can about the ways and works of his predecessors on this distracted planet, for whom he holds an ineradicable veneration that is perhaps a relic of ancestor-worship.

* * * *

At any rate, the antiquarian pilgrims in their piety have placed a new quill pen in the hand of John Stow in a quaintly named church in a quaintly named street. Why Leadenhall? For no better reason, I suppose, than that the roof of Sir Hugh Neville's mansion—he held it in 1309—was remarkable for its covering of lead, which in that day, we may therefore infer, was not in common use as a roofing material. Lead cisterns and pipes, however, were known to John Stow, who records that "The first cistern of lead, castellated with stone, in the City of London, was called the great conduit in West Cheap, which was begun to be built in the year 1285, Henry Wales being then Mayor." Stow has a further note of "Thames water conveyed into men's houses by pipes of lead from a most artificial forcier standing near unto London Bridge, and made by Peter Moris, Dutchman, in the year 1582, for service of the City, in the east part thereof." Again, he records that on the north side of St. Nicholas Cole Abbey, "in the wall thereof, was of late built a convenient cistern of stone and lead for receipt of Thames water, conveyed in pipes of lead to that place, for the ease and commodity of the fishmongers and other inhabitants in and about Old Fish Street."

* * * *

But concerning "Undershaft." Now, the shaft was a maypole, no less, and it seemed cursed with a tragic influence. Stow's account of it shall serve: "In the month of May, the citizens of London of all estates, lightly in every parish, or sometimes two or three parishes joining together, had their several mayings, and did fetch in maypoles, with divers warlike shows, with good archers, morris dancers, and other devices, for pastime all the day long; and toward the evening they had stage plays, and bonfires in the streets. . . These great mayings, and May-games, made by the governors and masters of this city, with the triumphant setting up of the great shaft (a principal maypole in Cornhill, before the parish church of St. Andrew therefore called Undershaft) by means of an insurrection of youths against aliens on May-day, 1517, the 9th of Henry VIII., have not been so freely used as afore." In a later reference he tells us in fuller detail that "the fair and beautiful church of St. Andrew the Apostle" was called St. Andrew Undershaft "because that of old-time every year on May-day in the morning, it was used, that an high or long shaft, or May-pole, was set up there, in the midst of the street, before the south side of the said church: which shaft, when it was set on end and fixed in the ground, was higher than the church steeple." This sounds rather tall; but then the "fair and beautiful church" is of no great height. Yet the shaft must have been a hefty bit of timber; for Chaucer refers to "the great shaft of Cornehill" in a poem in which he wanted a familiar example of enormous size. "Evil May-day" was not absolutely the last occasion on which the shaft figured as a long pole wherewith to stir up strife; for though "the said shaft was laid along over the doors, and under the pentises of one row of houses and alley gate, called of the shaft Shaft Alley," where it hung quiescent for two-and-thirty years, it then happened that a fanatical preacher, one Sir Stephen, curate of St. Katherine Cree, denounced it as "an idol." Thereupon the inhabitants of the houses that harboured the shaft rose up, "after they had well dined, to make themselves strong, gathered more help, and with great labour raising the shaft from the hooks, . . . they sawed it in pieces," which they burnt.

* * * *

Soon afterwards this same mad or malignant curate seems to have procured the death of the bailiff of Romford, "a man very well beloved." Early in the morning of Mary Magdalen's Day, the bailiff was brought to Aldgate to be executed, apparently upon a trumped-up charge of treason. "Being on the ladder, he had words to this effect: 'Good people, I am come hither to die, but know not for what offence, except for words by me spoken yesternight to Sir Stephen, curate and preacher of this parish, which were these. He asked me, "What news in the country?" I answered, "Heavy news." "Why?" quoth he. "It is said," quoth I, "that many men be up in Essex, but, thanks be to God, all is in good quiet about us"; and this was all, as God be my judge.'" Stow heard this speech, for the bailiff was hanged on the annalist's doorstep.

* * * *

Sir Andrew Undershaft, which was built between 1520 and 1532, contains many memorials, and incomparably the most interesting of them is the terra-cotta monument to John Stow, who sits at a table writing. Like so many statues in the City churches, Stow's was painted, but only slight traces of the colouring remain. Probably the likeness faithfully reveals to us what manner of man Stow was in the flesh. It shows him a mild-faced student with a magnificent dome of a head. Stow, born in 1525, the son and grandson of a tailor, was apprenticed to that useful trade, which, because it gives large opportunity for meditation, has produced so many notable brainworkers. He was about forty when the success of his "Summary of English Chronicles" led him to abandon tailoring for research. When Archbishop Parker died, Stow lost his chief supporter. lived in penury, and died in poverty at the age of eighty. He was buried in the church of St. Andrew Undershaft, of which he had given an account in his "Survey," where he states that the church "hath been new built by the parishioners there since the year 1520; every man putting to his helping hand, some with their purses, others with their bodies. Steven Gennings, merchant tailor, sometime Mayor of London, caused at his charges to be built the whole north side of the great middle aisle, both of the body and choir, as appeareth by his arms over every pillar graven, and also the north aisle, which he roofed with timber and ceiled, also the whole south side of the church was glazed, and the pews in the south chapel made of his costs, as appeareth in every window, and upon the said pews." Truly, a generous benefactor, but apparently a glutton for self-advertisement. Praise of Stow were superfluous. Londoners love him because he loved London.

DIOGENES.

STANDARDISATION OF HOUSE DESIGN.*

BY W. ROSS YOUNG.

THERE are already examples of what standardisation means in the way of expedition, economy, and efficiency as applied to the manufacturing and mechanical world; and indeed it has only been through the adoption of such means that the manufacturers and captains of industry have been able to maintain their position in the world's struggle for trade ascendancy. It is known how much the duplication of thousands of articles to one particular shape, size, design, and specification tends to speed up production and lessen cost; and, in as far as one can apply this to housing, one is bound to obtain similar results. If the 500,000 houses which are to be built at the close of the war are each to be the subject of a special design, having each their special component parts, and again these component parts are constructed to divergent specifications, then the reverse of "standardisation" will assuredly follow. The minimum results would thereby not only be obtained in the way of expedition, economy, and efficiency, but the huge after-war housing programme now outlined could not be undertaken.

Beyond a general expression of opinion that standardisation could with advantage be applied to component parts of buildings, there does not seem to have been any authoritative pronouncement on the matter, and, so far as is known, no definite understanding has been reached either with regard to those component parts which could be standardised, or the machinery which would be put into operation to ensure a more or less universal system of standardisation being adopted with regard to them. Many of the munition factories designed for destruction will have to be converted into equally busy factories for construction. It will be necessary suddenly to change over and consequently decide exactly how this is to be done. The manufacture of building material will take a large place in the immediate after-war industries, if the nature, sizes, and amounts to be manufactured can be decided in time.

In considering the question of standardisation, it is evident that there must be some definite relationship between "type plans" and "component parts." Indeed, it is difficult to see how a system of "standardised component parts" could be fitted into plans, unless the plans themselves complied, at least, with certain recognised "standard dimensions." Further, the standardisation of component parts must involve some system of "standard specifications," to control the construction and manufacture of these.

It would appear, therefore, that the question of standardisation in relation to housing can best be divided and discussed under three interdependent phases—namely, "type plans," "component parts," and "standard specifications."

The Standardisation of Plans.

To the architect the word "standardisation" when applied to housing, and especially to type plans, may seem at first altogether too mechanical, and therefore antagonistic to applied art. At the outset he is naturally inclined to conclude that it could only lead to monotonous results and consequently prove a grave blunder were he to concede its introduction in any shape or form. While, therefore. the author does not propose unduly to press his views on this phase of the subject—for he recognises that it is one which requires extremely careful consideration before its adoption—he, nevertheless, feels that it may prove of interest to those large numbers of architects, engineers, and municipal authorities who are considering housing schemes if he could place before them such facts concerning this question of standardisation of type plans as have specially appealed to him in carrying out recent housing schemes of considerable magnitude.

So long as housing remained a matter of private enterprise, and where it was carried out in a sporadic and piecemeal fashion, standardisation was wholly out of the question. Now, however, that housing is to be more or less controlled by the State and there are to be provided hundreds of thousands of houses of practically the same size and accommodation, built and finished with more or less the same kinds of materials, and indeed to all intents and purposes duplicates of each other, a great chance presents itself for the consideration of some system whereby standardisation can, to some degree at least, be adopted, especially so if this can be done without in any way impinging upon the recognised necessity for preventing monotony and the giving to schemes that feeling of tradition and meaning common to the district in which they are erected. One must recognise the social influence and aspirations which artistic housing can create in a community, and cannot afford to sacrifice this even on the grounds of economy and expedition. A fuller examination may, however, show that standardisation properly applied might be the means of producing the very opposite result.

When considering standardisation as applied to type plans, one can first see how far this can be applied to individual housing schemes, and thereafter estimate to what degree it could be extended in a more or less universal manner; for, if the full benefits of standardisation are to be obtained, nothing short of some universal application of recognised principles would fully meet the case.

With regard to individual housing schemes—which for the most part will be carried out in groups of from four to eight houses—standardisation, as the author views it, would consist in designing a series of type plans in such a way that each type could form a unit or units in the composition of groups—that is to say, the plan and elevation of each unit or type in the same series would be designed in harmony with the other types forming the same series; and so if more than one type was employed in the composition of a group the group so formed would have as complete and harmonious a design as if it had been the result of one individual and preconceived design. Thus by a system of permutation there could be evolved even from a very limited number of type plans an almost infinite variety of groups, each group, however, being different in shape, design, and external appearance from any other group, but nevertheless forming a complete design in itself.

By way of illustrating the practicability of this system of permutation the writer has had designed four type plans illustrating some of the numerous combinations and diversity of external appearance and effect which would result. The plans only show a few of the many shapes which the groups might readily take; for, indeed, it is difficult, if not impossible, even to calculate the number of different varieties of groups which could be evolved, even if the type plans were limited to four designs.

The author has found in working out a scheme of 500 houses on the basis of four-type plans that there would be no trouble in so arranging the disposition of the type plans forming the groups as would ensure that no two groups would be the same; and, further, that it would be possible to constitute the groups in such a manner that they would readily fit into any desired osition in relation to the lay-out in the way of uadrangles, street corners, and other groupings. Vhile the suggested scheme has been limited to four ype plans, it is obvious that if a greater number of ype plans were used the variation would have an lmost infinite range of variety.

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* Extracts from a paper read at the Scottish Annual Meeting of the Institution of Municipal and County Engineers.

In working out the system there would naturally be series of type plans prepared suitable for south-ronting houses, and another for north-fronting houses.

To appreciate fully this system of permutation and o realise more fully that it would have exactly the pposite effect from that tending to produce monotony, ne has only to visit some of our more recent housing chemes. There it will be found the numbers of types ave, of necessity, been limited and vary in most cases rom three to six. In such schemes it will be observed hat in almost all cases the groups consist of one type f houses only, and that the different types do not ermit of a system of permutation. This has resulted n repeating groups of the same type over and over gain, as the number of different groups is strictly imited to the number of type plans adopted.

Component Parts.

That there is great need for the evolution of some ystem whereby standardisation could be applied to omponent parts can perhaps best be appreciated by n examination of the many type plans for housing chemes which have been prepared in recent years, and ow little attention has been paid in the design to this natter. If observations are directed, for example, to vindows—and the same applies throughout the lesigns—it will be seen that no two windows in some ypes have been drawn to the same size, while the vindows in the different types in many cases only liffer in size by fractions of an inch. Such gross eglect to recognise the first rules of standardisation as undoubtedly led to increased cost in building and he lessening of production. It is not too much to say hat in practically all our housing schemes there would e quite a sufficient selection of windows to draw upon f there were, say, twelve to eighteen standard sizes lefinitely recognised.

In the absence of standardisation of component arts, manufacturing firms cannot possibly proceed vith the manufacture on a large scale. By so doing hey might manufacture component parts to sizes, hapes, or specifications which an architect might not sk for in the next twenty years; and until some recog-ised system of standardisation is adopted it will not e possible to set going the large manufacturing firms n a post-war basis. On the other hand, if standard lesigns for component parts were agreed upon and the nformation circulated among manufacturers, it would nean that at the end of the war they would be able to bsorb enormous numbers of workmen and proceed vith the manufacture of component parts by the housand.

Standardisation of component parts to be effective nd universal would have to be so conceived that, as far s possible, the standard parts of one type of house vould be interchangeable with those of other types.

The question naturally arises as to which of the omponent parts in cottage buildings could most eadily be standardised, and the following seem to be ome of those materials which could be most con-eniently manufactured to a definite size and specifica-ion.

(a) Concrete window-sills and lintels, kitchen jambs nd lintels, concrete slabs for partitions, shuttering for oncrete floors and roofs, reinforced concrete, includ-ng floor joists, ceiling joists, and roof rafters.

(b) Doors, windows, picture rails, skirting boards, acings, stairs, shelving, hinges, locks, and general ronmongery.

(c) Ridge tiles, chimney pots, roofing tiles, and pecial pieces in connection therewith.

(d) Rhones and conductors, together with angle pieces and off-sets connected therewith, hot-water cylinders, feed water-tanks, baths, sinks, water-closets, flush cisterns, scullery coppers, water taps, electric fittings, etc.

(e) Fireclay goods, including sinks, drain pipes, inspection eyes, bends, traps, off-sets, etc.

(f) Grates, ranges, stoves, and general cast-iron work.

Assuming that the component parts of house designs were standardised it would not only effect economy in the manufacture and construction of the houses, but save infinite technical labour on the part of the architect and contractor. For example, instead of the architect having to draw out carefully prepared details of the various component parts, he would simply have to quote the numbers referable to these. In return he would expect in each case a precise article of a precise make, design, and size, free from all imperfections, and exactly in accordance with the standard drawing and specification implied by his reference to the number. The contractor, on the other hand, when asked to tender for a scheme, would similarly only require to get in touch with the manufacturing firms and ask them to quote for a definite number of standardised articles, knowing also that whatever quotation he received was for a definite article made to a definite size and specification, and that it would comply in every respect with the architect's requirements.

Specifications.

If standardisation be applied to component parts of buildings then it follows that these will have to be constructed to some definite specification. The preparation and adoption of "standard specifications" regulating the quality, composition and manufacture of building materials would result in one of the greatest advances yet made in the building world, and would have a widespread and beneficial effect in securing expedition and economy of construction. It would further secure a much better and more uniform standard of building construction. In this regard one could have no better example of the benefits of a standard specification than the good results which have accrued through the preparation and recognition of such in connection with the manufacture of Portland cement. These results are sufficient in themselves to justify the adoption of the principle as applied to other forms of building material, and could be readily applied not only to the manufacture and composition of materials, but to the constructional work itself. At present architects have to write long and elaborate specifications controlling these, and even then it is difficult, if not impossible, to obtain materials or construction in accordance with such specifications. Hitherto specifications have been most unsatisfactory, lacking that definiteness necessary to prevent inferior materials being manufactured or used.

The great question with regard to national housing is whether this great programme is to have some system of uniform control applied to it, or if there are to be thousands of architects, engineers, builders and manufacturers directing it along different lines without any attempt towards co-operation or unity of effort. Any such system has broken down and failed most miserably in all the great industrial undertakings, and it would be too much to hope for success if applied to the building world. The least, therefore, those who are vitally interested in this great housing programme can do is to investigate fully what method can best be adopted—whether it be by a system of universal standardisation or standardisation as applied to individual housing schemes—to secure those three important factors the author has already referred to—namely, expedition, economy, and efficiency, and all that these great factors imply.

PROVIDING FOR THE REPATRIATED SOLDIER.

THE June issue of the "Architectural Review," just published, contains, among many other interesting features, M. Mervyn E. Macartney's second article on "Homes of Rest Almshouses as War Memorials," in which he discusses the problem of providing for the post-war welfare of our repatriated soldiers. "So many," he says, "are the suggestions and so divergent the aims of some enthusiasts that one feels alarmed lest, from the variety of schemes, the stream of the nation's benevolent energy should be dissipated into too many channels.

"Not only in Great Britain but in France and the United States the aftercare of the disbanded soldiers and their dependents is occupying more and more of the thoughts of wise and far-seeing men and women. So vast is the vision presented that few can picture the scene with any sense of reality. Take the numbers of officers: the figures are close upon a quarter of a million. We may regard many of these as married men. How many can count on obtaining work that would support them and their families? There must be centres for teaching them trades and professions. The experience that they have gained in the War, though very valuable, is of little use commercially.

"The French have called this future 'Re-education.' It must be co-ordinated on business lines; therefore, besides homes for the disabled, there must be educational establishments, like the colleges at Oxford and Cambridge, for instructing those anxious to learn a means of livelihood. There is no doubt that the prevision of men like Lords Armstrong, Kelvin, Palmer, and many others, has been the means of saving this country from ruin. Had it not been for the colleges and universities founded and encouraged b these men our plight in this mechanical war woul have been sore indeed. Most of the students at thes seats of learning have been young unmarried men. W must evolve some scheme whereby the married ma can fit himself for the battle of life.

"No nobler aim can be imagined than that o founding a community for this purpose. It might b somewhat of a family gathering. The women mean t take a far larger share in the production of the wealth not only of the nation collectively, but individually o the home circle. They will see too, that their girl occupy their time in remunerative work. The tambou frame and guitar are things of the past. The tren of public opinion has long been in the direction o diverting eleemosynary benefactions towards educa tion. The funds of Durham See have been largel allocated to Armstrong College, Newcastle.

"The plea for building Homes of Rest is urged a corollary to this. It is all part and parcel of the recon struction of social life after the War. But instead o carrying out buildings as barracks or factories, let u take counsel together to see if something better canno be devised, and, by examining the examples of which there are scores in the country, hit on some pla whereby we may be able to help our repatriated warriors, advance the welfare of their families, and at the same time embellish the country.

"With this object in view several well-know examples of Homes of Rest are shown, including the almshouses at Maidenhead, reproduced below. It would advance the cause if i were possible to find the right word to fit the object aimed at. 'Homes of Rest' does not exactly

ALMSHOUSES AT MAIDENHEAD.

ll the bill. What is wanted is some descriptive title hat would embrace the two objects aimed at—resiential buildings for officers, with pay insufficient for eeping them in their proper status and with opporınities for adding to their income by means of farmıg (fruit, poultry, or agriculture); secondly, educaonal centres for men bent on learning scientific and ıechanical trades and teaching their families to be elf-supporting. It has been the custom in both the Jnited States and Germany that every man and oman, of whatever degree in life, must learn a trade ufficiently well to be able to earn a living at it should ıe necessity ever arise.

“The man who has had three or four, and maybe ıore, years of the stress and shock of war, will in many ases require at least a year, if not more, of almost ıdolence to recover his mental and physical balance. o him the solace of a rural home and quietude of reen pastures would be of inestimable benefit. Unless e build hostels there will be no proper place for these ar-scarred men to find a refuge from carking care nd the memory of the grim scenes they have witessed, the losses of possessions, friends, and nerve. Jnless some of these can be made good to them how an they battle with the world, ever the novercal and ot true mother toward those who are a bit down in ıeir luck?”

The June issue contains its customary wealth of ttractive articles, including: “Porches and Hoods of ıe English Domestic Renaissance,” by Lieut. Harold ., Walker (R.A.F.), A.R.I.B.A., “An Account of oucy-le-Château,” and the concluding part of Mr. lbert F. Calvert's description of “David Roberts's panish Drawings”—all profusely and finely illusrated. The Edith Cavell Home for Nurses at the ondon Hospital (Rowland Plumbe, F.R.I.B.A., and artners, architects) is illustrated and described, and here is an interesting notice of the recently published iography of the late Karl Bitter—the accomplished culptor who met his death in an automobile accident n New York three years ago.

THE PLATES.

The London and Provincial Bank Office, Ilford.

HE new branch office of the London and Provincial Bank at Ilford, designed by Messrs. E. H. Bullock and Leslie T. Moore, A.R.I.B.A., was ompleted early in 1917. The building is carried ut in Portland stone with reinforced concrete oors, and has frontages to the High Street and Voodland Road. The ground floor contains the anking hall, manager's room, and strong room, ıvatories being arranged on two floors as shown n the plan. On the mezzanine floor the kitchen, cullery, etc., are planned over the back portion of ıe building, so that the banking hall could be the vhole height of these two floors. A separate ntrance with an outside staircase is arranged for ıe kitchen. The banking hall is panelled to a eight of 12 ft. in stained whitewood framing with -ply mahogany panels. The fittings are carried ut in mahogany, and the public space is paved in lack and white marble. The manager's residence planned on the first and second floors, with a lift unning from the ground floor to the first floor. The hotograph reproduced is on view in this year's oyal Academy Exhibition.

An Oak Lectern.

This lectern, designed by Sir Robert Lorimer, .R.S.A., F.R.I.B.A., and recently placed in the histle Chapel, St. Giles's Cathedral, Edinburgh, is f Scotch oak. It was carved by W. and A. Clow, nd made by Nathaniel Grieve.

A Fifteenth-century Panel.

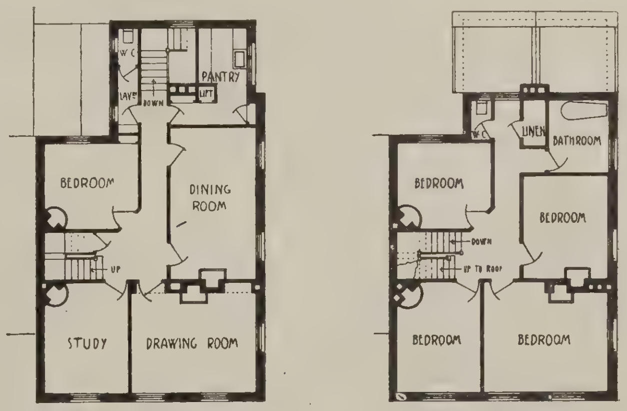
Taken from a farmhouse at Kingstone, near Taunton, this excellent example of fifteenth-century “linen” pattern panelling is now in the Victoria and Albert Museum. It is of oak, and is fixed within a moulded framework. Above is a Gothic border divided into lengths by small capitals and carved with lozenges, circles, and floral devices. The height is 3 ft. 2⅝ in. and the width 4 ft. 7⅝ in.

A Mausoleum Chapel.

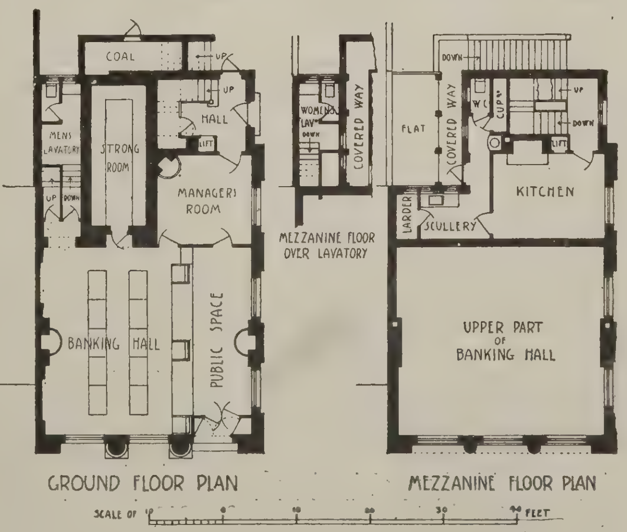
This design was prepared primarily as a study in the monumental use of concrete, which material, it is suggested, should be employed throughout, in conjunction with stone sculpture, and marble for the entrance doorway. The internal walls would be decorated in mosaic and the floors and reredos in marble. The building, it is suggested, would meet the purpose of a memorial to those who have fallen in the War.

The Forum, Rome.

The Great Forum in Rome is a whole valley filled up with important public buildings. At the city end it is overlooked by the Capitol, and the farther end is almost blocked in by the immense island-like bulk of the Coliseum; on the right side is the hill on which are the imperial palaces, and on the left are the great baths. Within this area were basilicas, temples, triumphal arches, and public statues. In his series of Roman etchings, of which the one reproduced in this issue is a fine example, Mr. Walcot has caught convincingly the true spirit of antique civic art.



FIRST FLOOR PLAN SECOND FLOOR PLAN



GROUND FLOOR PLAN MEZZANINE FLOOR PLAN

PLANS OF LONDON AND PROVINCIAL BANK'S BRANCH OFFICE, ILFORD.

E. H. BULLOCK & LESLIE T. MOORE, A.R.I.B.A., ARCHITECTS.

BUILDING AFTER THE WAR.

THE Committee of the Ministry of Reconstruction, which is making an inquiry throughout the country from local authorities, builders, architects, and others as to the probable demand for, and supply of, building materials during the reconstruction period two years after the war, has extended until July 1, 1918, the date upon which the inquiry forms already sent out are to be returned.

The Committee hopes that any authority, person, or firm contemplating building works immediately after the war who has not received one of the Committee's forms of inquiry will apply either directly or through an architect to the Secretary of the Building Materials Supply Committee, 6a, Dean's Yard, Westminster.

In cases where only sketch plans have been prepared and the preparation of complete plans and bills of quantities has been postponed until after the cessation of hostilities, it would appear that no materials will be required until at least six months after the war, and as regards these works it will suffice if the undermentioned particulars are furnished:

County.
Description of building.
Estimated pre-war value of the work.
Estimated date of commencement of building.
Estimated duration of contract.

Wherever possible, however, approximate quantities of materials needed should be furnished, especially in the case of building-stone and bricks, steel, and timber.

Materials needed for repairs, maintenance, etc., form the subject of a special inquiry and particulars of these are not needed at present. In other matters, however, it is hoped that every effort will be made to complete forms of inquiry by the date specified. Unless the Committee is made fully aware of the prospective needs of consumers, it will not be possible to estimate how far the available supplies will meet the demand.

CORRESPONDENCE.

Concrete Ships.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—This new and important industry is meeting with the objections and also with the approval with which all new ideas are received.

The publication of the paper which was recently read at the Concrete Institute on this subject will possibly give still further assistance to the country—maybe some genius will come along with a strong, tough, elastic concrete such as we have never known.

What would the spirit of Macadam say if he could be shown a modern dustless road as necessitated by the advent of the motor? And is it not possible that a similar chemical agency (say with bitumen) might produce the resilient concrete so urgently required for ship building?

At present concrete as we know it must be used, and the general opinion evolved during the discussion at the Concrete Institute was against renderings and washes, and that the concrete itself should be made waterproof.

"It was explained that washes of all kinds are only "skin deep," and would quickly wear off by the friction of the water—that any efflorescence would also force off a film such as a wash produces. Few would disagree with these objections.

To prevent "fouling," which increases the resistance of the water, there were several suggestions for giving the concrete a smooth face. One speaker thought that the concrete face should be ground down after the removal of the forms. This would necessitate great care in grading and mixing the concrete, and the use of a cement waterproofer to eliminate voids and prevent the presence of orifices.

In an article recently published in a Norwegian journal a Mr. A. A. Boon states that the concret should be polished not only to prevent fouling, bu because it guards the steel reinforcement against rust. He found that the ships which he had polished were not subject to the formation of minute cracks on the surface, through which the water would otherwise enter and rust the reinforcement.

For some years terrazzo workers have used my product for obtaining a polish on cement surfaces, fo they find it is the only method which will withstand the acid-laden air of large towns. Experiments are being made in several countries with Pudloed concrete with the dual purpose of waterproofing and polishing the exterior hulls of concrete ships. So far, I am allowed to say that the lubricating action of the powde which is given to the aggregate when mixing the concrete surprisingly eliminates the voids, as previously proved by several experiments made at the Engineering School of Cork University a few years ago.

I shall be glad to send any reader of this widely read journal the Book of Tests, containing tension compression, and percolation tests made by such world-famous experts as Faija and Kirkaldy. The latter tested Pudloed cement after one year and after two years, and proved that the cement was slightly strengthened thereby. J. H. KERNER-GREENWOOD.

King's Lynn.

FOR GOVERNMENT CONTRACTORS.

AMERICA coming into the war has accentuated one problem very acutely. That problem is the heavy demands made upon the world's supply of certain raw materials. To secure its proper allocation from the general pool, the Admiralty is seeking to obtain from its contractors, including ship repairers their prospective needs of these particular materials.

With this in view, towards the end of June Admiralty contractors will receive forms asking them to state their requirements, and ship-repairing firms will receive forms asking them to give their average past consumption during the last six months.

It is true that filling in forms is a very unpleasant task for the contractor who "wants to get on with the war." It is obvious, however, that to make the best of certain materials they must be carefully rationed so as to ensure that the needs of essential war purposes are fully met. This is only possible when these needs are foreseen well ahead, and firms will eventually serve their own interests by filling in and returning the forms without unnecessary delay.

RATIONING IMPORTED SOFT WOODS.

THE Controller of Timber Supplies is arranging a scheme in connection with the rationing of sawn and planed imported softwoods. Firms coming within the undermentioned categories whose transactions in such imported softwoods exceeded an average of 100 standards per annum during the years 1912, 1913, and 1914, who desire to be included in the scheme, should apply in writing for a form of registration to the Controller of Timber Supplies (Room 100), Caxton House, Tothill Street Westminster, London, S.W.1.:—

Importers, merchants, and retailers should apply for "Registration Form R.A."

Shippers, agents, and brokers should apply for "Registration Form R.B."

June 18 is the date mentioned by which applications for Forms R.A. or R.B. should be sent in, but probably the forms may still be obtained.

WAR·BVILDINGS·SECTION

FUTURE APPLICATIONS OF REINFORCED CONCRETE.

N a country which still hesitates to
abandon an antiquated and compli-
ted system of weights and measures,
iich, as Lord Kelvin has truly remarked,
ds 50 per cent. to the work of clerks and
aughtsmen in engineers' and surveyors'
ices, and which wastes the time of mil-
ns of children in learning these obso-
e tables, it is not surprising that in the
plication of concrete and reinforced
ncrete to industrial uses we still lag
hind.

To France and America we owe the
bmarine, the aeroplane, reinforced
ncrete, the automobile; and, whilst we
ve largely overtaken our rivals in the
ter industry, the establishment of the
tomobile industry has been due to their
oneer efforts.

The progress that we have at last
complished in reinforced concrete has
t been due to any official recognition or
sistance, but has been entirely owing to
e initiative and enterprise of private
dividuals and firms who have, at con-
lerable risk to their finances, in the
rly days, laid the foundation stone of a
rmanent and useful industry. It has
so been due to the intelligent apprecia-
n of its possibilities by certain sections
the technical Press.

Even now the effect of the official recog-
tion of reinforced concrete is of a re-
rictive character through the introduc-
n of laws and regulations, both general
d local, which hamper the development,
thout compensating advantages, of an
dustry which has been comparatively
mune from disasters and failures even
efore the introduction of superfluous
gislation.

Before the war evidence could be seen
every direction of its substitution for
d-fashioned steel framework buildings,
d of the tremendous hold which re-
forced concrete construction had ob-
ined from a structural point of view
on our engineers and architects.

But though we may still seek in vain for some outward manifestation of a general appreciation of its artistic possibilities both in form and colour, what shall we say of the tremendous impetus which the war has given to the material? As an optional form of construction it had more than held its own against the older forms of construction in virtue of its economy, durability, and low cost of maintenance. But now, with its low consumption of steel, of which there is a famine, reinforced concrete has become an absolute necessity as a substitute for steel frame construction.

Not only steel, but timber is scarce. This is recognised officially by Cabinet instructions which have already been issued as to the necessity of avoiding the use of timber wherever possible. We trust that the various Government Departments concerned will soon put into practical application the possibilities of the new material.

Questions in the House on concrete as a substitute for timber have drawn sympathetic replies from the representatives of the various Government Departments, and we understand that the matter is receiving very serious consideration.

In the course of an interesting article in "The Indented Bar Bulletin," the following are a few of the applications of reinforced concrete suggested as lending themselves to immediate trial:

Concrete Barges.—We are informed that the Canal Control Committee of the Board of Trade are fully aware of the desirability of substituting reinforced concrete for timber or steel for the building of barges, and that the Shipping Controller is aware of the necessity of limiting the use of timber, also that the question of the construction of barges in reinforced concrete is being carefully examined. Abroad, however, matters have gone beyond this initial stage. We know, for instance, that at Moss in Norway, vessels of 3,000 tons displacement are actually being constructed in reinforced concrete. In America concrete lighters have been used for the past six years at Chesapeake Bay. Since 1910 they have been used on the Panama Canal and on the Welland Canal. Concrete schooners employed in the North Atlantic coasting trade have been constructed since 1898. In France ships and barges of concrete are being built, and also in Italy. But in England, the premier shipbuilding country in the world, we appear content to "wait and see."

Pit Props.—The Controller of Coal Mines has been fully apprised of the desirability of extending the use of concrete pit props as widely as possible. We trust that the matter will not be left entirely to the initiative of colliery companies in this country, and that some powerful lead in the shape of Government example may inspire them to adopt this method of construction, which will result in an enormous economy in timber, not only during the war but subsequently.

Concrete Fence Poles, Etc.—Here and there we see applications of these along the countryside, but the possibilities are enormous.

Concrete Sleepers.—The reinforced concrete sleeper that fulfils all railway requirements absolutely has, we believe, not yet been found. This largely is a matter of experiment which will necessarily extend over several years. Our railway companies should each of them be putting down a certain mileage of different types of reinforced concrete sleepers with a view to testing the most suitable design for their traffic. To-day, when we are faced with an absolute dearth of timber, the step becomes imperative.

Concrete Roads.—We are told by the Road Board in their Blue Book that about 15,000 miles of roads in England and Wales stand in need more or less urgently of reconstruction or strengthening, and about 2,000 miles in Scotland. Beyond a few occasional experiments in concrete roads no serious attempt seems to have been made yet to test the suitability of this form of construction for the heavy main traffic which our roads will have to stand after the war.

With our present railways carrying yearly increasing traffic, both goods and passenger, the construction of arterial roads to collect agricultural produce, which will be obtained on a more extensive scale through feeder roads, will impose itself upon us immediately at the end of the war.

We should at the present time be laying long stretches of reinforced concrete roads of different types and for different classes of traffic, so that we may be in a position, after these have been tested during the varying seasons of the year, to apply the most suitable type to our after-war road construction. All these questions require immediate and earnest attention.

COKE BENCH, EBBW VALE.

PUSHING ENGINE TERRACE AND COKE BENCH, EBBW VALE.

The structure shown in the accompanying illustrations forms part of the coking plant for the Ebbw Vale Iron, Steel and Coal Co., Ltd. The pushing engine terrace consists of a 6-in. slab carrying the track, 427 ft. long, 27 ft. wide, and raised 16 ft. 6 in. from ground level. It is supported by 32 pairs of columns, 16 in. by 10 in. in section, and beams 18 in. by 10 in. The reinforcement of the inner row of columns is anchored to the mass concrete of the ovens, the outer row being supported on footings 5 ft. square, approximately 2 ft. below ground level. Each pair of columns is tied with a horizontal strut 10 in by 10 in. in section, 8 ft. 6 in. from footing level, and a sloping strut 14 in. by 10 in. in section from the same level on the outer column to the top of the inner column.

The rails are carried on beams 24 in. by 18 in. in section below the slab, and special provision was made to accommodate the rail chairs, which are made with a spike on the under side to prevent lateral movement when the engine is at wor The lateral pressure may be as much 200 tons at any point on the track.

The ovens develop an extraordinari high degree of heat, and two expansi joints have accordingly been provided the length of the terrace.

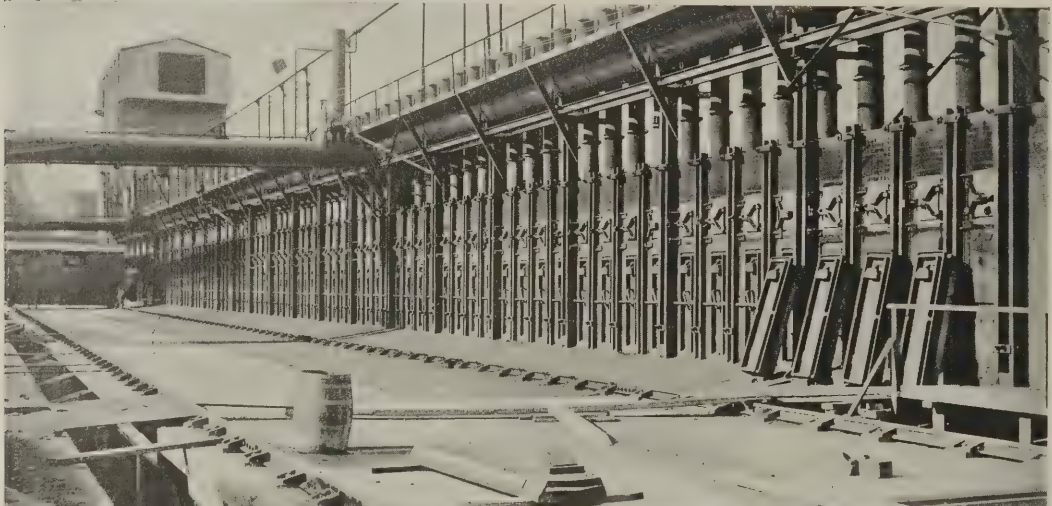
The coke bench consists of a slopi slab 6 in. thick, 398 ft. long, and 19 wide, resting on beams 14 in. by 6 in. section, at 7 ft. 3 in. centres. It is 20 from the ground level at the back, a 8 ft. in front. The columns at the ba are 10 ft. in height, and re on the mass concrete of t ovens at 14 ft. 6 in. centre The front of the slab carried on V-shaped su ports, as shown in the se tion given, these bei approximately 24 in. by 6 i in section, and braced wi 14 in. by 6 in. ties.

The bench is covered wi overlapping ¾-in. steel plate The coke is pushed out the ovens by the pushing e gine, and drops on to th bench. Water is th sprayed on it, and carri away by means of t channel formed by the shaped supports at the low edge of the bench.

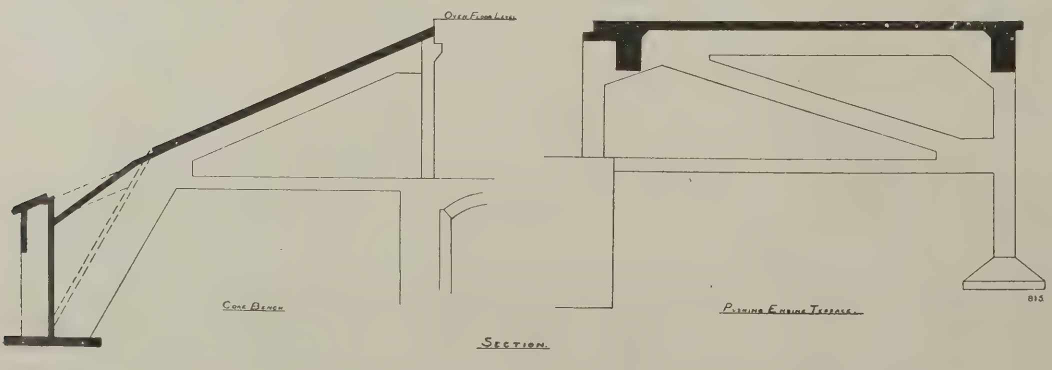
The slab which forms th channel slopes the who length of the bench, t height at the extreme out edge falling from the pos tion shown on the sectio given to that indicated the dotted lines.

This work affords another instance of the ve satility of reinforced co crete, which, adapting its readily to the most diver conditions, has helped solve satisfactorily ma difficult industrial problem

The whole work was ca ried out in reinforced co crete by the Ebbw Vale C the engineers being Messr Koppers Coke Oven a Bye Products Co., of She field. Indented steel bar r inforcement, supplied by t Indented Bar and Concre Engineering Co., Ltd., w used throughout.



View of Pushing Engine Terrace.



SECTION OF PUSHING ENGINE TERRACE AND COKE BENCH, EBBW VALE.

NEW ORDER UNDER THE MILITARY SERVICE ACT.

A new Order under the Military Service ct, 1918, cancels a large number of occu- tional exemptions from military service anted by Tribunals.

The new Order is as follows:

"In exercise of the powers conferred pon me by Section 2 of the Military Ser- ce Act, 1918, I, the Right Honourable ir Auckland Campbell Geddes, K.C.B., irector-General of National Service, do ereby order as follows:

"1. I do hereby withdraw as from the nd day of June, 1918, every certificate exemption from military service granted renewed wholly or partly on occupa- onal grounds which is held by any man, hether attested or unattested, who is ithin any of the classes or descriptions d fulfils the conditions specified in the chedule hereto.

"2. As from the said 22nd day of June, 18, any certificate to which this Order plies shall cease to be in force.

"3. In exceptional cases consent to the aking of an application to a Tribunal occupational grounds by or in respect a man whose certificate comes within e terms of this Order may be granted by e, or by any persons generally or speci- ly authorised by me in this behalf, and ich consent may be unconditional or sub- ct to such terms and conditions as may expressed therein.

"4. This Order shall come into force rthwith, and may be cited as the Mili- ry Service (Withdrawal of Exemptions) rder (No. 2), 1918.

"(Signed) A. C. GEDDES,

"Director-General of National Service.

"Dated this 6th day of June, 1918."

The Schedule Referred To.

In this Schedule the following defini- ons shall apply:

"Medical Category" means any of the llowing Categories in which men have en placed by Army Recruiting Medical oards, namely, Categories A, B 1, C 1, 2, C 2, B 3, C 3, and R.R.

"Medical Grade" means any of the fol- wing Grades in which men have been aced by National Service Medical oards, namely, Grades I., II., and III.

Where the expression "all other classes workmen" forms a sub-division of any em in the Schedule, that expression in- udes any man (not within any other sub- ivision of the item) who is in any way gaged or occupied within the trade, siness, or occupation to which the item fers, except a proprietor, a working rincipal, or a man wholly engaged or cupied in an administrative or clerical pacity.

Part I.

Every man who according to his prin- pal and usual occupation on the date of is Order, is within any of the classes or scriptions specified in this part of this chedule, provided that—

(i.) On the date of this Order he is, ursuant to his last authorised medical amination, in a Medical Category or edical Grade indicated opposite to his ass or description hereunder, or has not een placed in a Medical Category or edical Grade, and

(ii.) He was born in or after the year dicated opposite to his class or descrip- on.

We reproduce that portion of the Schedule which applies more or less directly to building interests:

Reference No.	Classes or Descriptions	Med. Grade or Category		Born in or after the year
		Grade	Category	
128	**§Building Trades (including Decorating, Painting, Renovating, or Repairing of houses or other buildings):**			
	(a) General Foreman; Clerk of Works; Foreman; Under-Foreman or Charge Hand; Ganger	I	A	1880
	(b) Chimney Shaft Builder or Repairer	I	A	1893
	(c) Plumber; Scaffolder; Crane Driver	I	A	1885
	(d) Circular Sawyer; Frame Sawyer; Band Sawyer; Band Mill Sawyer; Moulding Machinist; Planing Machinist; Spindle Moulding Machinist; Slater	I	A	1883
	(e) Mason (Fixer); Concrete Block Maker; Concrete Mixing Machine Attendant; Bricklayer; Joiner; Carpenter; Plasterer	I	A	1880
	(f) Carter, Lorryman (Horse or Power)	I	A	1885
	(g)*All other classes of workmen	I	A	1875
141	**Quarries, Stone and Shingle (including Stone obtained from Blast Furnace Slag Dumps):**			
	(a) Foreman	I II	A B1, C1	1875 1887
	(b) Quarryman	I II	A B1, C1	1875 1887
	(c) Engine-man, Crane Driver	I	A	1885
	(d)*All other classes of workmen	I II	A B1, C1	1875 1887
	Part II.			
X001	**‡Engineman or Engine Tenter, including Driver of Works Locomotive**	I	A	1883
X002	**‡Steam Power Crane Driver**	I	A	1883
X003	**‡Steam Boiler Fireman**	I	A	1883
X004	**Maintenance and Repairing Staff:** Mechanic, Electrician or Electrical Fitter, Mill Joiner, Bricklayer, Cooper, or other skilled man wholly or principally engaged in the maintenance or repair of his employer's plant, machinery or tools	I	A	1885
X006	**‡Works Chemist**	I	A	1893

6. It will be observed that certain industries in the Schedule are marked §, namely, those under Reference Numbers 125, 128, and 129. It is intended that another Withdrawal Order should be made shortly, which, as regards these industries, will have the effect of decertifying men of higher ages and lower grades and categories than those specified in this Order. It is not, however, intended that this further decertification should affect men who, when the proposed Order is made, are principally and usually engaged in these industries on contracts for Government Departments.

7. The fact that a man engaged in a trade or occupation referred to in the Schedule is not decertified by this Order does not confer upon him any exemption, nor can this Order be taken to imply in any way that he should necessarily be retained in civil life. A certificate of exemption which he holds may cease to be in force or may be withdrawn by the Tribunal in the ordinary course.

8. The Order is a withdrawal of certificates of exemption and does not in any way affect protection certificates, such as those issued under the Munitions Area Recruiting Scheme, Forms 3476 A, 3476 B, and 3476 W.M.V. It follows that no alteration is made by the Order in the current arrangements by which holders of protection certificates are rendered available for service.

The complete document can be bought, price 1d., through any bookseller or directly from H.M. Stationery Office at the following addresses: Imperial House, Kingsway, London, W.C.2; and 28, Abingdon Street, London, S.W.1.

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*Subject to the limitation specified in Part II. of this Schedule.

§ See Paragraph 6 of Explanatory Notes.

‡ If the man is the only man of his occupation in his shift, his certificate of exemption is not withdrawn by this Order, although otherwise it comes within the terms of this Schedule.

LEGAL.

Claim by Contractors.

Leslie and Co., Ltd., v. Golding.

June 10. Official Referee's Court. Before Mr. Pollock.

In this action Messrs. Leslie and Co., Ltd. (proprietors of Aldin Bros. and Davies), of St. James's House, Kensington, sued Mrs. Georgina F. Golding, of 55, Great Portland Street, London, for balance of account for work done and materials supplied for repairs and decorations at No. 4, Gledstanes Road, West Kensington. The original account was £613 2s. 3d., of which £300 had been paid on account, leaving the balance of £313 2s. 3d. sued for.

Mr. Du Parcq appeared for the plaintiffs and Mr. Newman for the defence.

Mr. Du Parcq said that the plaintiffs were a firm of builders who some years ago bought up the decorators' business of Aldin Bros. and Davies, and carried on the decorators' business of their work under the name of that firm. The manager of the decorative department, Mr. Leslie Shingleton, was a personal friend of the defendant and her husband, and the earlier arrangements between the parties were made with him. He, being now a major in the Army serving abroad, could not be called. First of all, there was a claim for work done and materials supplied to the amount of £523 9s. 5d., to which was added interest at the rate of 6 per cent., as agreed, amounting to £89 12s. 10d., making the total claimed, of which £300 had been paid on account. The work, which was mostly decorative work, was done at the defendant's house in the Gledstanes Road, West Kensington, between the months of June and December, 1913, and estimates were given to the lady which amounted to £238, but in addition a great deal of extra work was done. Blinds and carpets were supplied by the firm to the amount of £114 6s. 9d. When an account was sent in for £181 17s. 6d. a cheque for £100 was paid on account. At the time no question was raised as to the charge, and plaintiffs had no reason to suppose that there would be any dispute, and they had therefore not kept their time sheets showing the details for labour.

The only question between the parties was one of amount. During the hearing of the plaintiffs' case a settlement was arrived at under which the defendant agreed to pay £290.

Judgment was accordingly entered for the plaintiff for that amount with costs.

Housing and Town Planning Act: Liability: Important Point.

Carey and Wife v. Francis.

June 11. King's Bench Division. Before Justice Avory and a Jury.

The question of the liability of a landlord for personal injury, under the Housing and Town Planning Act, was raised in an action in which John Carey sought to recover compensation for injury to his wife, caused through a decayed stairway of a house occupied by him at Watergate

Street, Deptford, of which the defendant, Mr. James Francis, is the owner. The claim was for loss of services of the wife.

The plaintiff's case, supported by evidence, was that on July 20 of last year Mrs. Carey was about to proceed from her kitchen to the cellar, and when she stepped upon the stairs she fell through into the cellar owing to the condition of decay into which the woodwork had been allowed to get, so injuring her leg that she had still to walk with crutches, and was unable to perform her household duties, in consequence of which Mr. Carey had to supply a substitute at 12s. a week.

Counsel for plaintiff (Mr. Martin O'Connor) argued that under the Housing and Town Planning Act the landlord was liable, even though, as he alleged, the plaintiff's wife knew of the dilapidated condition of the stairs and that she never used them. The Act, he said, would not allow anyone to contract out of it.

Mr. Langdon, K.C., for the defence, said he was unable to dispute the obligation put upon the defendant by the Act of Parliament, but his contention was that the cellar was out of use and was understood to be so by the plaintiff. With the exception of the cellar, the house was admitted to be in a habitable condition. The cellar was not a habitable part of the house.

His Lordship, in the course of his summing up, said that if the house was not reasonably fit for human habitation, and the plaintiff suffered damage in consequence, then the landlord was responsible. It was quite immaterial whether or not the cellar was in use, as it formed part of the house let by defendant.

The jury found for the plaintiff, and awarded him £75 damages, for which amount his lordship entered judgment, with costs.

A CIVIC SOCIETY FOR BIRMINGHAM.

The Civic Society which has been established in Birmingham should have (says a leader-writer in the "Birmingham Post") the good wishes of all classes of the community. Such an institution has long been wanted in our midst, and for the matter of that in every large industrial centre in the kingdom. Through an agency of this description public opinion can be instructed in the matter of combining beauty with utility in what Alderman Neville Chamberlain describes as "the outward aspect" of the city. From an architectural point of view no one would venture to say much regard has been paid to beauty in the past. Indeed, little but utility has occupied attention, with the result that as a city Birmingham can vie in ugliness and unshapeliness with the majority of large industrial centres in this country. Perhaps if we had not a large share of the partiality of the hen with the ugly chick we might even be disposed to assert that our deficiencies in this respect were almost unrivalled. It is a hopeful sign when a community comes to realise its shortcomings in material aspect, and is anxious to break with the negligence and the errors of the past. Birmingham has that realisation and that desire for reform. It has given careful consideration to town-planning schemes; it has in mind an ambitious scheme of arterial roads. How is that desire to be brought to full fruition? Only if educated public taste lends its aid, and if it have collective expression. First and foremost the municipal authorities must give a sound lead. Even they, with high professional advice behind them, are not incapable of blundering, as we know by experience. Therefore it will be all to the good if the newly established Civic Society, whose council has a wide artistic representation that cannot fail to command respect, is in a position to act in an advisory capacity to the City Council. Clearly there is urgent need for a tribunal whose opinions on matters of taste will be highly regarded. Such a tribunal, we hope, may be provided for Birmingham in the Civic Society now formed.

GAS COMPANIES' CHARGES: REPORT OF SELECT COMMITTEE.

There was issued on Thursday last the report of the House of Commons Select Committee appointed to consider the expediency of sanctioning the temporary modification of statutory requirements with regard to price and dividend in the case of gas undertakings whose financial circumstances have been injuriously affected by the war. Appended is the full text of their recommendations.

1. With the view of maintaining in the public interest the stability of gas undertakings, some provision should be made for the temporary modification of statutory requirements with regard to price and dividend in the case of undertakings whose financial circumstances have been injuriously affected by causes arising out of the war.

2. In the case of any company operating under the sliding scale or the maximum price systems whose dividend on its ordinary stock or shares has been reduced to one-half of the standard or maximum rate, or to one-half of its average dividend calculated on the three financial years immediately preceding the war (whichever may be the smaller), the sliding scale or minimum price shall cease to operate, and the company shall be entitled to charge such price for gas as may be held by the Board of Trade to be sufficient to provide such costs of manufacture and distribution as are properly chargeable to revenue account and such additional sum as will enable the company to pay a dividend on its Ordinary stock or shares at the rate of one-half the standard dividend or one-half the pre-war dividend calculated in the manner set out above, whichever may be the smaller.

3. All gas undertakings belonging to municipal or urban authorities shall be entitled to increase the charge for supplying gas beyond the statutory maximum charge to such an extent as may be necessary to pay the actual cost incurred for such manufacture and distribution, but such increase shall in no case exceed one-half the statutory price fixed for such undertaking.

4. In order to ascertain whether a claim for increase can be established the auditor of any gas undertaking seeking modification shall certify to the Board of Trade (or, in case of municipal or urban authorities owning gas works, to the Local Government Board) that the position of the undertaking has been financially affected as set out in the preceding clauses, and shall further certify the amount required to be charged per 1,000 cubic feet for gas in order to meet the cost of manufacture and distribution, properly chargeable to revenue, and in the case of a company to pay such rate of dividend as is referred to in Clause 2 hereof, and the Board of Trade or the Local Government Board (as the case may be) may, upon being satisfied o the correctness of the accounts upon which such certificate is based, forthwith authorise an increase in the price per 1,000 cubic feet chargeable to the consumer to such an amount as will be sufficient to cover such cost and to pay such dividend.

5. The provision above recommended should be carried into effect by genera legislation, and not by private bill, and should have effect during the continuance of and for one year after the termination of the war, and for such further period as the Board of Trade may by Provisional Order (subject to confirmation by Parliament) determine.

AN ADDENDUM TO THE WHITLEY REPORT.

The Whitley Committee on the Relations between Employers and Employed have presented a further report, which is now published by Dr. Addison, Minister of Reconstruction. It deals with conciliation and arbitration. The Committee pronounce definitely against any system of compulsory arbitration, on the grounds that it is not generally desired by employers and employed, that it has not proved a successful method of avoiding strikes during the war, and that it would be less likely to be successful in time of peace. They also pronounce against any scheme of conciliation which would compulsorily suspend a strike or lock-out pending an inquiry.

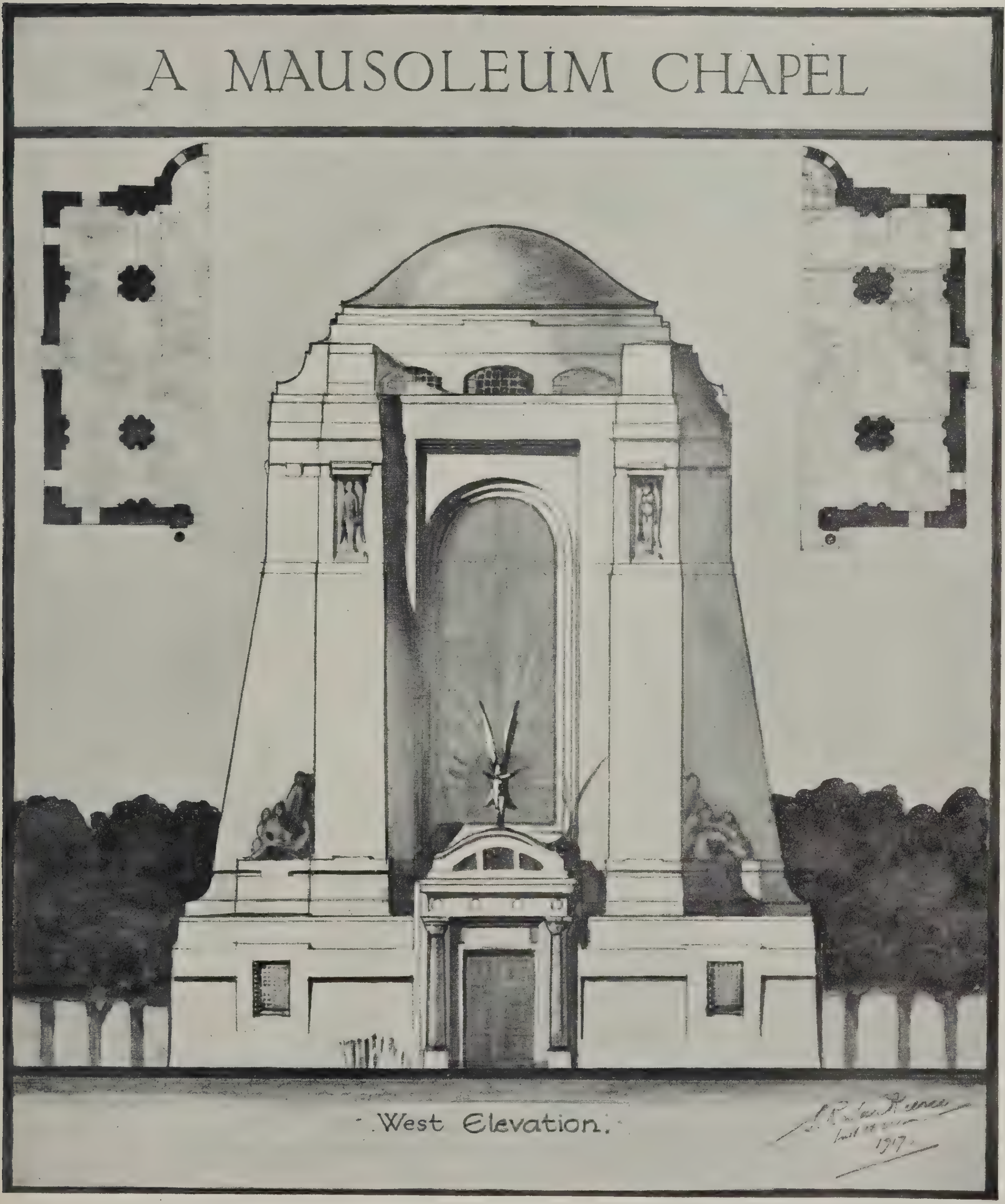
The Committee advocate the continuance, however, of the present machinery for voluntary conciliation and arbitration, and hope that the setting up of joint industrial councils (on the lines recommended in their earlier reports) will tend to the growth of such machinery. They consider that there should be means for holding independent inquiry into the circumstances of a dispute and for making an authoritative pronouncement thereon without the compulsory power of delaying the strike or lock-out. Their main constructive suggestion is that a Standing Arbitration Council should be established on the lines of the present temporary Committee on Production. To this Council disputants would be able voluntarily to refer such differences as they are themselves unable to settle.

It is suggested, however, that single arbitrators should be available for less important cases which could be heard locally. It is further suggested that the Standing Arbitration Council should take means to secure the co-ordination of arbitrators' decisions. The Committee are opposed to the enforcement of awards and agreements by means of monetary penalties.

The report is available from H.M. Stationery Office, Imperial House, Kingsway, W.C.2, price one penny.

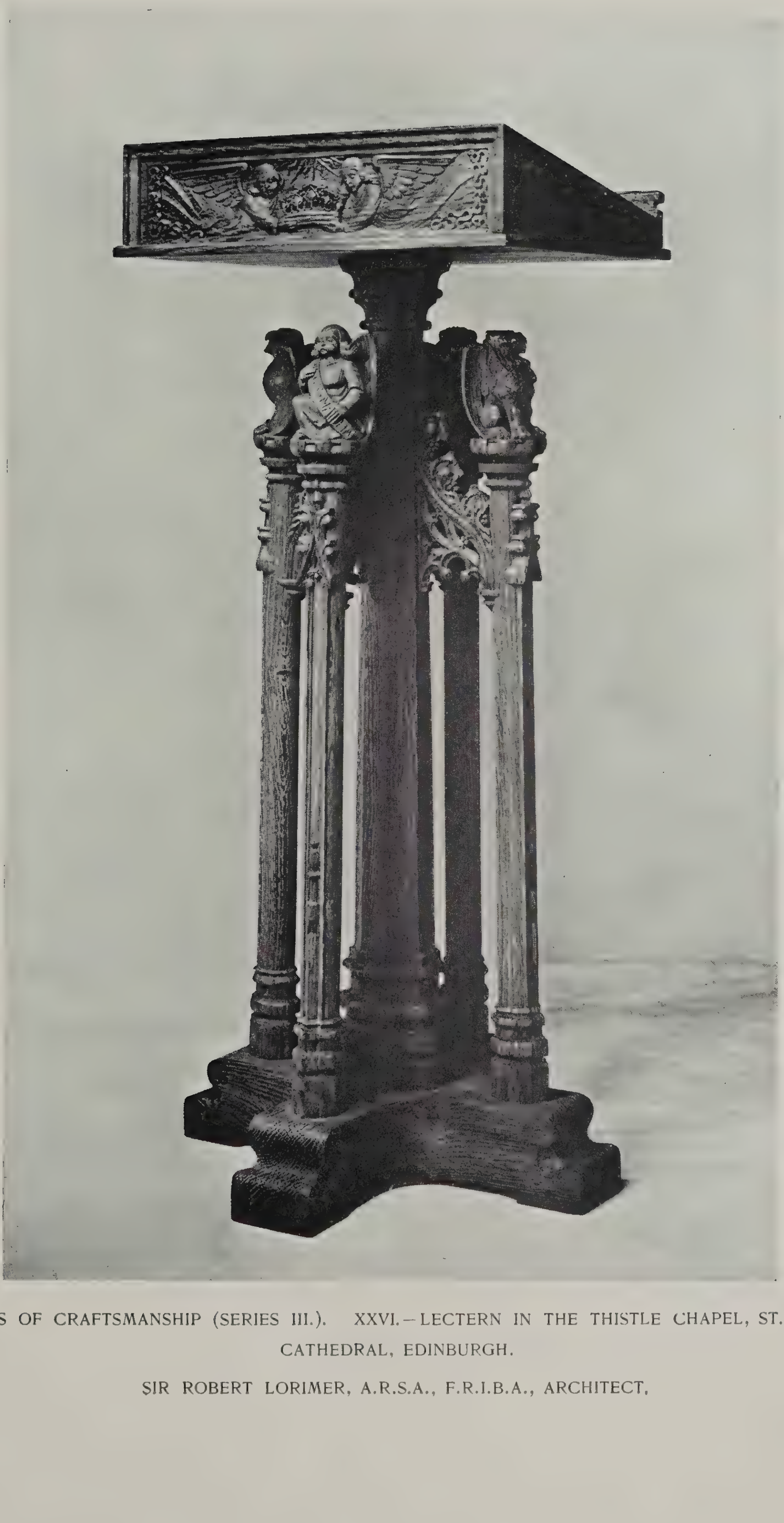
Trussed Concrete Steel Co.'s New Offices.

The War Cabinet Committee on Accommodation having requisitioned the offices of the Trussed Concrete Steel Co., Ltd., in Caxton House, Westminster, for the housing of one of the Government Departments, the company has taken new offices at 52, Truscon House, Cranley Gardens, S.W.7, to which address all communications should henceforth be directed.



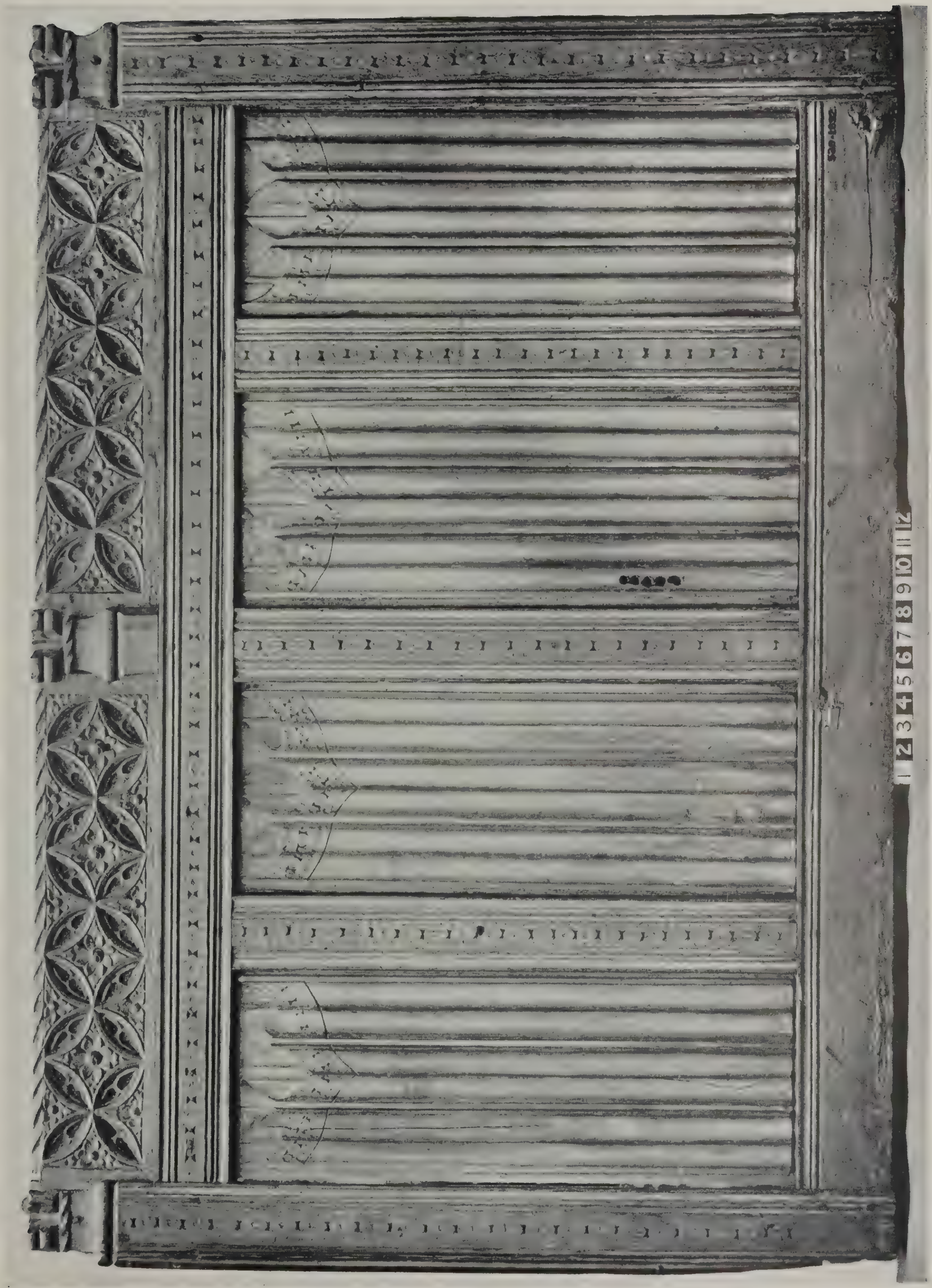
STUDENTS' DRAWINGS (SERIES III.). XI.—DESIGN FOR A MAUSOLEUM CHAPEL.

BY S. ROWLAND PIERCE.



DETAILS OF CRAFTSMANSHIP (SERIES III.). XXVI.—LECTERN IN THE THISTLE CHAPEL, ST. GILES'S CATHEDRAL, EDINBURGH.

SIR ROBERT LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.



DETAILS OF CRAFTSMANSHIP (SERIES III.). XXVII.—CARVED OAK PANEL FROM A FARMHOUSE AT KINGSTONE, NEAR TAUNTON (NOW DEMOLISHED).

(Reproduced by courtesy of the Director of the Victoria and Albert Museum.)

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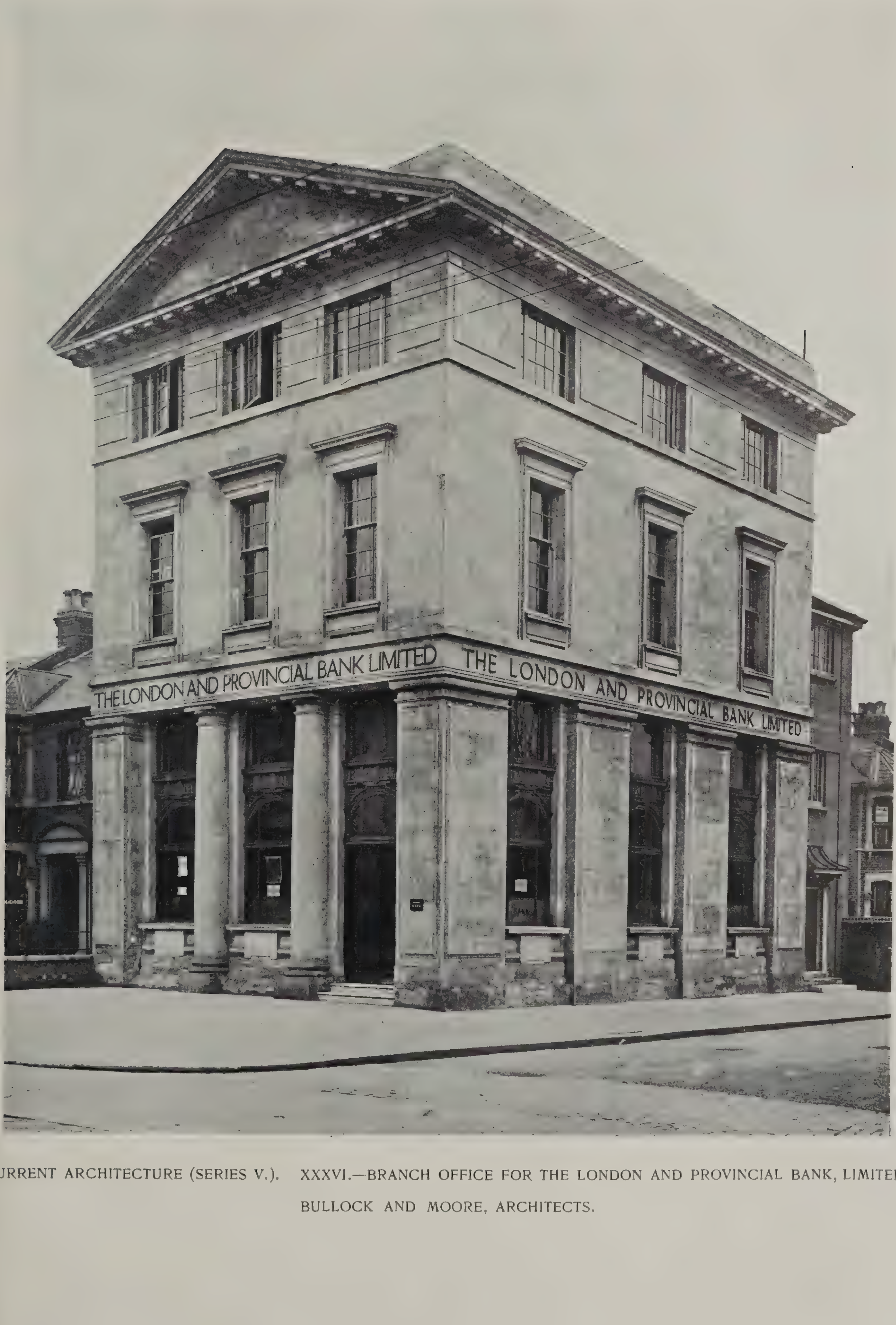
THE LONDON AND PROVINCIAL BANK LIMITED
THE LONDON AND PROVINCIAL BANK LIMITED

CURRENT ARCHITECTURE (SERIES V.). XXXVI.—BRANCH OFFICE FOR THE LONDON AND PROVINCIAL BANK, LIMITED.

BULLOCK AND MOORE, ARCHITECTS.

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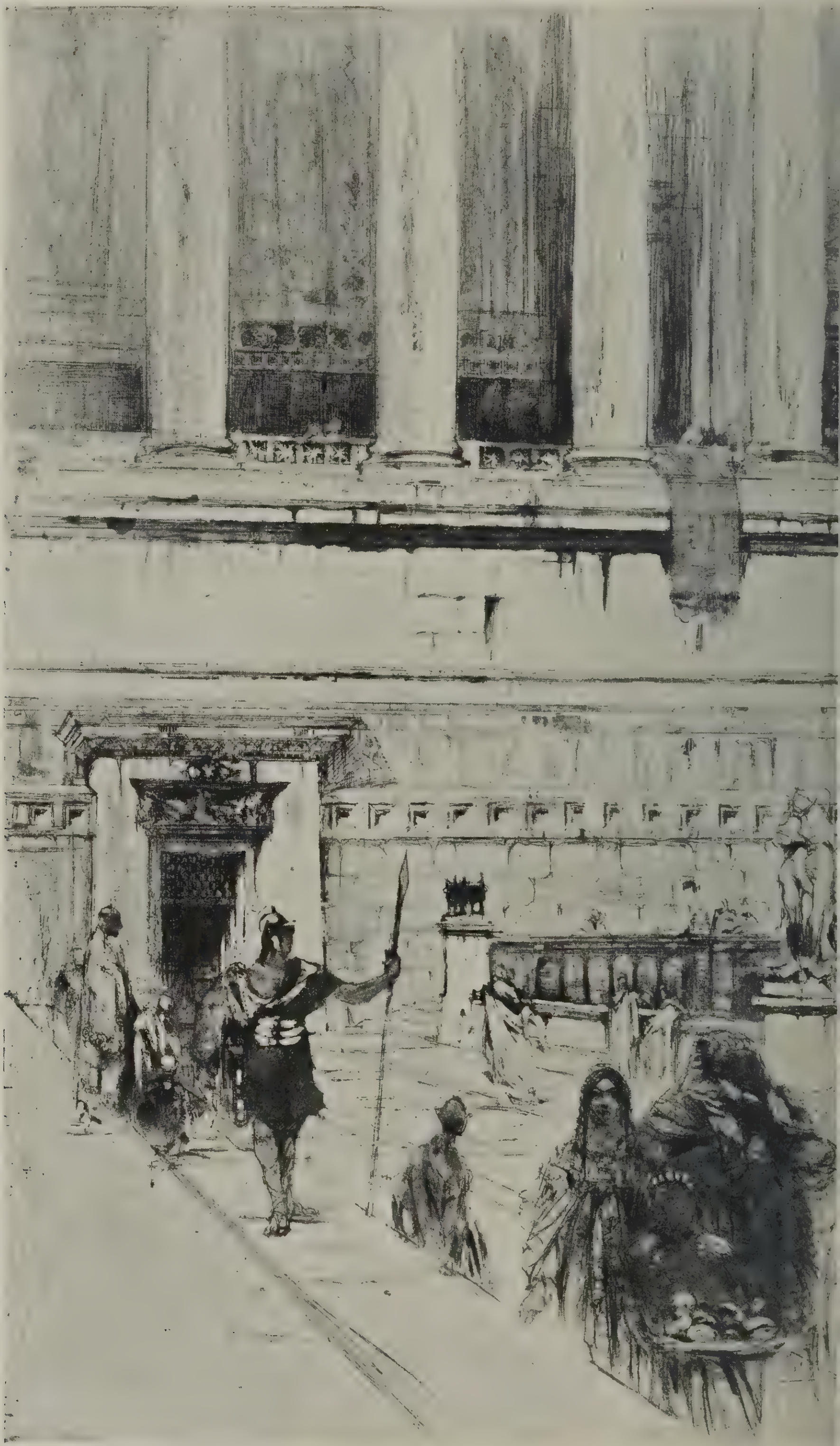
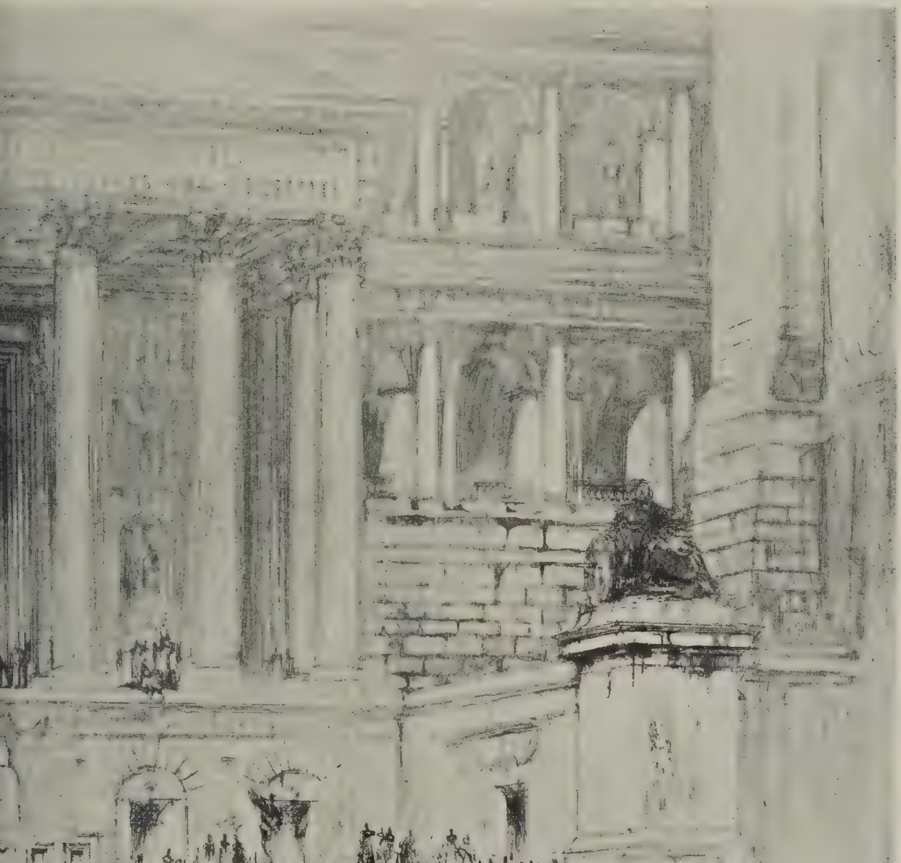


ARCHITECTURAL DRAWINGS AND SKETCHES.

(*From the Etchi*



I.—THE FORUM (AFTER THE FORUM AT ROME).

William Walcot.)

THE ARCHITECTS' AND BUILDERS' JOURNAL.

JUNE 26, 1918. *TOTHILL STREET, WESTMINSTER.* VOLUME 47. No. 1225.

NATIONAL PAPER ECONOMY.

Owing to the very necessary Government restricions on paper supplies, all elements of waste must e rigorously excluded. Our readers, we are sure, vill gladly assist in promoting this object, which is n item in national economy. They can co-operate vith us effectually in either of two ways—(1) By lacing a direct subscription for this Journal, or (2) y placing with a newsagent an order for its regular elivery.

The Government Paper Controller has now foridden the return of unsold copies of newspapers nd periodicals to the publishers. Newsagents are herefore now keenly interested in the elimination f the casual customer, and are morally compelled o obtain only those papers that have been previously rdered. This fresh development strongly mphasises the foregoing advice to place a direct ubscription or to give a newsagent a standing order or regular delivery.

DOES the architect consider himself a "Superior Person"? He does not, if he is a typical architect. Mr. Thomas Foster, in a letter which we rint on a later page, departs from his usual marked rbanity in throwing out that imputation. We were in wo minds about deleting this injurious phrase from an therwise irreproachable letter, but decided to retain he passage for what it may be worth as an indication f what the architect's aloofness costs him. If he is nisunderstood to this extent by so acute an observer nd so genial a critic of men and affairs as Mr. Foster, vhat chance has the coy architect with the average ontractor? Until this distrust is removed, and unless he bland guild spirit is abundantly revived, the eneral aspiration for unity must remain sterile. It is ot at all necessary to assume that the architect stands oldly aloof because he "considers himself a Superior erson." He has more substantial reasons. It is not nerely a question of social standing, or class prejudice, r what, to follow Mr. Foster's example of using plain vords, one may set down as simple snobbery. What as caused the unnatural estrangement and perpetutes it is the peculiar position of the architect as the uffer between owner and contractor. That is the ault of the prevalent system of competitive tendering or contracts. In accepting the lowest tender, the wner, dimly conscious of the innate immorality of the ystem, naturally assumes that the lowest tenderer nust be closely watched, and he expects the architect o do the watching. That is where the "aloofness" rises. If the architect and the competitive tenderer vere observed to be friendly, the average owner would uspect that they were conspiring to rob him.

* * * *

This is the chief reason why the architect does not ssociate more freely with the builder, and it is deplorble upon many grounds. Closer intercourse, it is enerally admitted, would be of immense advantage o the art and craft of building, but it will be impracicable as long as competitive tendering controls the ituation An obvious disadvantage of the present osition of the architect is that it invests him with the haracter of a detective rather than with that of an rtist. There is sometimes, it is true, a clerk of works o whom the architect delegates most of the detective business; but this appointment merely accentuates the distrust. It may leave the architect more free to follow his proper function of design, but it does not relieve him of his odious responsibility as chief detective—a rôle that is the more irksome where the contractor has not been selected for his known merit by the architect, but for his low price—the figure being sometimes obviously so inadequate that the architect knows very well it cannot cover an honest fulfilment of the undertaking. Hence the need for vigilance; hence also the mutual distrust between architect and contractor. Prime-cost and fixed profit contracts, doing away with competitive tendering, would clear the way to a better understanding between architect and contractor, making possible, through cordial co-operation, better design, as well as better building, than any that can be evolved from a competitive system overloaded with squalid detail.

* * * *

In drawing attention last week to an economic aspect of housing that, we noted, had been much neglected, we were unaware that Professor Adshead had dealt with this very point at the twelfth Informal Conference of the R.I.B.A.: otherwise we should have been glad to cite his observations. It is a fairly close and quite "undesigned coincidence." Professor Adshead said: "It is a well-recognised fact in economics that rents are not subject to the same fluctuations as are the prices of consumable articles like tea, sugar, and bread. Nor are they subject to the same conditions of supply and demand." We said, it will be remembered, "A house is not an ordinary article of commerce, to be had cheaply and easily by the ordinary means of exchange and barter. . . . Yet the objection to national housing is largely, if not exclusively, based on an assumption that houses can be bought, sold, or hired, like mobile commodities." Here the parallelism becomes less close; for while our deduction was that therefore State intervention has occasionally become inevitable, Professor Adshead develops the arguments that "A rise in the price of building materials and in the cost of labour does not produce a corresponding rise in rent"—a statement that, we think, requires considerable modification before it can be accepted as entirely true—and, further, that the cottage of the future will not "be built by the speculative gentleman purely as a commercial enterprise. . . . The housing scheme of the future will be laid out on town-planning lines, and the commercial aspect will not loom largest in the field."

* * * *

With respect to rising costs of building and the effect on rents, Professor Adshead is no doubt right in the main. It will be noted that he speaks of a "corresponding rise" in rent; and there may be some virtue in "corresponding." He remarks further that increased cost "simply discourages building, and people crowd more tightly into houses already built." That has been a common effect of dearer building, and the remark on rent may perhaps be interpreted to mean, not that the landlord does not exact more—for notoriously he does—but that the tenant prefers to put up with inferior accommodation rather than pay more rent. That is why houseowners are commonly advertising little villas as "flats" for the accommodation of two tenants in a house originally built for one family. A concrete case will best illustrate how the landlord benefits. On the eve of a sudden and unforeseen sharp rise in prices, he is arranging to build a house which he intends to let at forty pounds a year. It is the extreme limit at which he could get a tenant for that class of house. With the jump in prices he finds that forty pounds a year will not yield him the return upon which he had calculated. He therefore gets in two families instead of one, each family paying thirty pounds a year, or nearly that; and so the owner gets sixty pounds, or thereabouts, where he had expected no more than forty. It would appear from such instances that while, owing to the special character of house-property as aforementioned, the rise in the price of materials and labour is not accompanied by what, strictly speaking, is a "corresponding" rise in rents, some sort of rise is nevertheless certain, except where the owner is tied down to an agreement for a term of years. Professor Adshead added that "this question of rent is not a matter of primary importance to us architects, except as indicating that the new houses that are to be built will not entirely depend upon the ordinary laws of demand and supply," and this is the important point to keep in view. To omit it from a general discussion of the housing question is to disregard a vital factor at the risk of falsifying the conclusion.

* * * *

One at least of Professor Adshead's critics did not, it would appear, duly credit the distinction between houses and more readily marketable forms of property. He was apparently of opinion that private enterprise could be safely left to solve the problem of national housing. He said that it was "a matter of supply and demand." As we have seen, it is that with a vast difference, and not to recognise this difference is to confuse the issue. No matter what inherent virtue the so-called law of supply and demand may possess, there are limits to its efficacy as a solvent. That there are occasions on which it breaks down hopelessly, let the food control coupons testify. His contention that "if there is the demand, it is far better to leave it to private enterprise to create the supply" has in it an element of daring; it defies the facts right valiantly, and it fearlessly opposes a musty precept of obsolete economics to a pressing need of to-day. For a decade or more there has been an insistent demand which private enterprise has shown a continuously growing reluctance to meet, and yet there are those who with touching loyalty to the catch phrase of a discredited school of economists say, in effect, *Laissez faire!* It is like throwing physic to the dogs and trusting to Nature to cure the malady, or like complacently watching a house on fire: leave it alone—it will ultimately burn itself out, and the eternal and sacrosanct law of supply and demand may be trusted to effect the necessary rebuilding! It does not seem to be sufficiently realised that the days are past when we could afford to "let the world slide," or put an indolent and improvident "trust in Providence." National housing has been too long left to drift, and must now be dealt with systematically and strenuously. Architects can do much to shape and direct the new movement, and we should like to see them adopting a more sympathetic attitude towards it. There is far too much sniffing and carping and nibbling at it.

* * * *

It will be noted that in the letter from Mr. Thomas Foster upon which comment is made in the first of these notes, that gentleman is rather inclined to deprecate his own plain speaking on the subject of the architect's alleged aloofness. At the Informal Conference now under notice, Mr. Henry Aldridge, secretary of the National Housing and Town Planning Council, allowed himself even more liberty. Bearding the lions in their den, he let himself go in words that could not well have been plainer: "May I say—and hope I shall not be misunderstood—that I think tha when there is a searching of heart amongst architec and professional men generally there will be profoun sorrow at their failure to rise to a great opportunit Remember that in the building industry you are th cultured men; you should be the intellectual leader But you have been 'dumb dogs' in the past when th housing needs of the people were being urged." I this there may be some slight degree of rhetoric exaggeration; but is there not a kernel of truth in th charge? He added: "Professor Adshead spoke of th craftsman of a hundred years ago. The craftsma then was a living entity to the builder, and to th architect who designed the building. But in rece years the architect has never [in common fairness M Aldridge should have qualified this with the useful hackneyed, "Well, hardly ever"] thought of the craft man—except as a kind of individual machine—an the men of culture who should have acted as a aristocracy and have watched over with deep conce the welfare of the workers in this great industry ha developed into a kind of 'snobocracy.' They ha neglected their duty towards their poorer wor ing-class brethren in this great building craft. Th architect must set his house in order, and put an end this period of neglect by combining with the biuld and the workman to raise the whole status of th industry of which they are part." This straight ta gave, apparently, not the least offence. Indee Professor W. R. Lethaby gave it this high commend tion: "I would like to associate myself with every wo Mr. Aldridge said." Certainly we are getting near to unity, although the approach is ordinarily ve gradual. It is always an outsider who gives it a stron impulsion. Mr. Sidney Webb helped it along wi some pretty plain speaking; and now Mr. Aldrid gives it another mighty push—whether forward backward is not quite certain.

* * * *

Innovations are commonly misunderstoo (especially when loosely described), and are almost frequently ridiculed. A scheme for the standardis tion of the details of cottage building has clashe against this triplex bronze. In what would appear, the face of it, to be a note that was not prepared f publication, or it would have been more cautious worded, one of the authors of the scheme speaks "a sort of keyboard from which it will be possible make innumerable designs." This expression seen to have misled one of our contemporaries, who shies "keyboard" design as a "rather terrible" idea. Y the writer of the description had said most explicit that "the aim is to set up a series of standard dime sions for all materials," which is clearly a very differe thing from having "an automatic cottage design launched upon the world." Our contemporary co fuses the piano with the pianola, and overlooks the vit fact that, in the scheme contemplated, an architect is the keyboard. It should surely be quite obvious tha no matter how accurately and completely materia are standardised, this is essentially a matter of co struction, and does not necessarily stereotype desig to any greater extent than the keyboard of a piano the manual of an organ prescribes the tune. Droppi this "keyboard" figure of speech—of which t infelicity rather excuses the misinterpretation—o may say with full confidence that architects w welcome the general standardisation of materials cordially as they welcomed the standardisation bricks; and we take it that the new scheme is simply extension to house-building of a principle—or let say an expedient—that has been adopted for t furtherance of convenience and economy in mo other directions.

HERE AND THERE.

AT BERTHA may fatuously damage or destroy some of the priceless monuments of Paris, but she cannot reduce to ruins their history, which is a much longer range in time than she has in space. *itera scripta manet* in spite of all that high explo- ves and low Hunnishness can accomplish. Paris is much inured to hostile attack as an eel is to being kinned; and when in 53 B.C Julius Cæsar's lieu- nant, Labienus, marched against Lutetia, it had pro- ably withstood already many a foe. It has been said at, after his victory, Cæsar, who found what is now e Cité, or the Ile du Palais, a congeries of mud huts ith straw roofs, put up several substantial buildings, d that in the eighteenth century one of them was pularly known as "Cæsar's Chamber." This origin discredited on the ground that "everything possess- g any extraordinary character used to be ascribed, the credulity of former generations, to the fairies, e devil, or Cæsar." To-day we have lost our faith the fairies, and while we are still willing to couple e devil with the Kaiser, we do not associate these ain with edification of any sort, for we recognise em as co-partners in the biggest house-breaking firm at ever kicked up a diabolical dust.

* * * *

It was not until four hundred years after the depar- re of Cæsar that Lutetia became Paris. Julian, who ave it that name, may neither have found it mud nor ft it marble, but it is pretty certain that he caused be put up some very substantial buildings, designed nd constructed after the Roman manner; for he win- ered there in A.D. 358; and your noble Roman, sub- ct, when away from his own sunny clime, to rheums nd respiratory diseases, knew how to do himself well the matter of winter quarters. Probably Julian dged in the Palais des Thermes—on the south bank f the sinuous Seine—Sequana being, it seems, the atinised version of a Celtic word signifying winding." Christianity came to the city with the Ierovingians under Clovis, about the year 508, and hen began the church-building for which Paris as been always famous. On the south side of the iver were founded the church of St. Peter and St. aul (afterwards the Abbey of Ste. Généviève, which ater formed the College of Henry IV.); St. Vincent nd Ste. Croix (afterwards the Abbey of St. Germain- les-Prés), and St. Marcel. On the north were built St. Germain l'Auxerrois, St. Gervais, and several others; while within the city there arose the prototype f the finest cathedrals in France—Notre Dame.

* * * *

Four times was the city ravaged, between the ears 845 and 885, by the Normans. In 978 the Emperor Otho II. brought sixty thousand men against he walls, but was driven back after he had destroyed ne of the extramural villages that had grown up ound the city. In an outer circle beyond these illages, religious settlements had been formed, and contingent to these there arose small holdings that vould seem to have originated the peasant-proprietor dea that is so popular in modern France. Tenure was eld from the religious houses, to which rent was endered in the forms of personal service and produce. n these conditions there gradually grew, for example, he villages of St. Marcel, Ste. Généviève, St. Germain- les-Prés, St. Germain l'Auxerrois, and others which, at first outlying and disconnected, were in course of ime linked up and became integral parts of the capital. Paris expanded rapidly under Robert II., whose reign asted from 996 to 1031, and who restored the old royal palace in the Cité, which stood on the site of the present Palais de Justice, and who also built several churches. It was during the reign of Louis VI., however (1108-1137) that Paris became really important. Abelard, lecturing in its schools, drew to them three thousand scholars, and houses had to be built to lodge them. Consequently the city was extended in all directions. Many churches had to be built—among them St. Jacques de la Boucherie, of which only the tower remained after the Revolution. Louis VI. is credited also with the construction of two fortresses, Le Grand and Le Petit Châtelet; but what is specially notable in the prolific building activities of this reign is the construction of the wall by which the suburbs were for the first time enclosed. There was already in existence an inner encircling wall, but this second wall was of much greater extent. North of the river, it began to the west of the church of St. Germain l'Auxerrois, and it ranged parallel to the streets des Fossés St. Germain, de Béthisy, and others in the same line until it reached the Place de Grève, to the west of which it turned towards the river, on whose bank it ended. South of the river, the wall began at the east end of the Convent des Grands Augustins (afterwards the Poultry Market), and, sweeping round by the south side of the Palais des Thermes, extended towards the present Rue des Mathurins, till it came to the Rue de Bièvre, along the line of which it descended to the river, where it terminated at the spot called Les Grands Degrés, nearly opposite the east end of the Ile du Palais. Thus to trace the course of this wall would be of no particular interest were it not for the indication of how small a city Paris within the walls then was; and even this small area was by no means wholly covered with buildings.

* * * *

In the succeeding reign (of Louis VII., 1137 to 1180) the first college, that known as Des Danois, was founded, in the Rue Ste. Généviève; several schools, religious houses, and hospitals were set up; and the Knights Templars built their habitation. Philip II., surnamed the August, whose reign ended in 1223, rebuilt in stone many of the old wooden churches, and it was in his reign that Notre Dame was erected. He put up the first public fountains, which were supplied by two great aqueducts, and in 1185 commanded that the streets should be paved. He was standing one day—so the story goes—at the window of his palace in the city, when, some carts having been driven up to carry away the mire and filth with which the street was covered, he was so much disgusted by the stench that he forthwith gave orders to have the principal streets paved at the expense of the burgesses. He built, to the west of the town, the castle of the Louvre, which was to serve as a palace, a fortress, and a prison. He began, about 1190, a new and larger city wall, which took about thirty years to build. It was surrounded by a parapet, was fortified by towers, and had more than a dozen gates.

* * * *

About 1356, Stephen Marcel improved the fortifications, which were further strengthened and enlarged between 1365 and 1383. At this period the city comprised 310 streets, few or none of them more than six or eight feet wide, and the population within the walls did not exceed forty thousand souls. Modern Paris may be said to have begun with the accession of Louis XI., for it was in 1470 that the first printing press, that most powerful agent of the Renaissance, was set up in the Sorbonne; while a new school of medicine was established near the Petit Pont, and the post office was instituted.

DIOGENES.

STANDARDISATION AND DISCIPLINE.

BY C. H. B. QUENNELL, F.R.I.B.A.

A YEAR or so before the war the writer was returning from Vienna, by way of Salzburg, Munich, and Rothenburg. Joining the main-line train en route for Flushing, at the wayside junction for the latter town, he found that a Dutch architect acquaintance was a fellow-passenger. Later a move was made for the luncheon car, where our table-mate was a gentleman most unmistakably Prussian. The Dutchman, who is a delightful person, and quite incapable of any calculated rudeness, made a comparison between the policemen of London and Berlin, which, if it contained no odious disparagement, perhaps rather extolled our native product. To our astonishment the Prussian, who was an utter stranger, attacked the Dutchman for his lack of enthusiasm about the Berlin bobby, and the writer for a lack of warmth when talking of Kultur. The Prussian, having disposed of the Dutchman, turned his attention to England and said, "As for you English, and your policemen, you are an undisciplined nation; you do not realise that we respect our policemen because they represent authority, but the day will come when you will take off your hat to a policeman in London, and he will be a German policeman, because we are going to conquer your country."

This was not any news, because, a year or so before, a German railway porter who was looking after one's baggage had conveyed the same information, though he was more polite in so doing, adding that he personally did not desire it because he was a Socialist. It was the German point of view that we were undisciplined—rich money-grubbers destined to fall an easy prey to them. To the onlooker this must have appeared to be the case. Looking back to the period before the war, we seem ourselves to have been on the verge of madness. Labour unrest, Ulster armings, gun-running, seem now like nightmare visions.

Now as to the bearing of all this on architecture. Our pre-war building was most certainly undisciplined, and seemed to lack any method, or sense of style. We had fashions in plenty, but no organic development. One remembers the cynical carver who said that good architecture was that which had plenty of carving, bad architecture that which had none, and this definition really did hit the mark in that we seemed to have cheap or expensive building. There was the Wardour Street school of sand-blasters, fabricators of the mock antique, who rubbed or blew off all the sharp corners, and were so unsound from the constructional point of view that their buildings cracked, not with time, but in the making; the quicklimers who whitewashed their oak. They were Texture-ites and talked of Patina and bloom. They did us all an incredible amount of harm, because they usually traded on the principle that appreciation could only be gained by touching the pocket, so Extras seem to have been encouraged.

Building had been made incredibly difficult, and a busy architect was being continually taken away from drawing board, and building, by the insistent calls of complicated procedure. Sketch plans from A to Z, because the client did not know what he wanted, and the architect had no established tradition. Contract drawings—Details—Specifications—Quantities—Tenders—Full sizes, and then a final account of Omissions, and Additions, and consequent measurings of same which bulked into another Bill of Quantities. As an engineer of our acquaintance once said, "What in thunder is it all about We can build a ship at so much per ton, and that i quite as difficult a proposition as building a house.’

The writer remembers an altercation with country builder who appeared to be quite unable t build to plan; in pointing out to him the error of hi ways, the remark was made that his mistakes wer inexcusable as he had plenty of details. "Ah,' said the builder, "that is just where the trouble is me and Bill [the foreman] has too many details. The poor things were moithered with paper, yet no having any tradition of their own it was difficult t find any other way of carrying out the work.

How can we get back to a good tradition? Th writer treasures a letter that he received from Norman Shaw in 1910, in which the case is stated ver beautifully. "It was always supposed tha 'Gothic' was to develop—and there was an amount of tall talk as to what it was to do—but i didn't do anything. It was like a cut flower— pretty enough to look at, but fading away befor your eyes. And if we don't take care, the Englis Renaissance that we now have will do the same— so unlike the French—they work in all the last century, doing work that was founded on their ol work, and magnificent work it was. And this wa the result of gentle development, new features an arrangements growing from the old stock. In fact their architecture was alive—ours dead. A might difference, and arising, of course, from their havin a *school*—and we have *none*."

Perhaps the unpleasant Prussian judged us b our architecture, and he would have been speakin no more than the truth had he said that it was undisciplined. How are we to rout the Dilettanti To turn the sand-blasters, the mock-antique merchants, the quicklimers, and texture-ites into usefu members of the profession? The most poten cause will, of course, be the change in the nationa mode of life. The quacks could make a living i the old days, but post-war problems are not to b solved by quicklime or sandblasting. We must b content to accept what Mr. Shaw said in 1910— that our old architecture is dead; out of chaos w must evolve order; an attempt must be made to ge back to first principles, we must approach our wor rather as engineers; think more of construction an letting materials properly employed tell their ow tale. A new school has to be formed founded o common sense. In large measure this must wai until the men who are now fighting or busy wit war work can come back with their finer conception of life and fuller appreciation of team work The war stands for so much more than beating th Boche; its wider significance is the bursting o unfair privilege all the world over. Out of all thi we shall have a quickening of common life an opportunity that must inevitably find its reflectio in building.

Now for the tentative remedies of the middle-aged prophets. Standardisation easily comes first In a world where the floods of war are sapping a the foundations, the standard house appears like a ark in which one can float to an architectura Ararat. It is disappointing to find in the Journa of the R.I.B.A. for June, 1918, that Professor S. D Adshead, in opening the discussion on "Nationa Housing and National Life," states that "it goe without saying that the cottages themselves will b built to standardised plans." It is perhaps rathe unfair to pick out a sentence which may not hav been intended to have so exact a meaning as its bare words imply. As well Professor Adshead's practice would hardly appear to carry out this principle. The very successful work which he did at Kennington with Mr. Ramsey surely consisted of more than the arrangement into blocks of standard cottages: for if we accept the principle of standardising the whole plan, then we must equally be prepared to use type plans supplied to us by the local authorities perhaps. One likes to think of the Kennington Housing Scheme as a very successful attempt to carry on the late Georgian building tradition which is instanced there in so many pleasant old houses.

One of the most notable contributions to the housing question is the paper on "Standardisation of House Design," read by W. Ross Young at the Scottish annual meeting of the Institution of Municipal and County Engineers, extracts from which were published in THE ARCHITECTS' AND BUILDERS' JOURNAL for June 19. Mr. Ross Young divides the question into three independent phases—"type plans," "component parts," and "standard specifications." So far as the first is concerned, it is suggested that the standard plans should be combined in a variety of ways, and the architects' business would be confined to the grouping of such units. Surely rather tiresome work leading to monotony, and tending to stagnation. It is when Mr. Ross Young comes to the consideration of component parts that we feel most in accord with his proposals; every practical man will endorse this statement. "Assuming that the component parts of house designs were standardised, it would not only effect economy in the manufacture and construction of the houses, but save infinite technical labour on the part of the architect and contractor." Mr. Young might have added that it would also be the first step on the road by which we could hope to reduce chaos to order, and so discipline ourselves into a better building tradition.

The writer of these notes has for the past six months been associated with an engineer in the preparation of plans for cottages in connection with a munitions factory, and this is how the engineer approaches building:

(1) We must have some common multiple, or unit, which will run through both plan and elevation, and this will regularise building methods and save time and trouble.

(2) All your materials must bear some definite relation to the unit; they can then be assembled without cutting or waste.

(3) If we do this systematically and thoroughly, we can manufacture, not only certain parts, but everything that is necessary to build the house; we shall be able to effect tremendous savings.

(4) We will forget all about half-timbering, sand-blasting, etc., but let first-rate material and good construction tell its own tale; in this way we may evolve a standardised method of building, which will be infinitely variable and more hopeful than a standard type of cottage; if we avoid any affectation in building we shall escape vulgarity.

All of which one has been trying to do, with the engineer watchful at one's elbow, lest through force of habit the old Adam architect should try any of his old stunts. The writer is moved to a great curiosity as to the progress which Mr. Ross Young has made in the direction of the standardisation of component parts, and suggests that it is evident that we must have a clearing house for ideas, so that architect, builder, and manufacturer can get into touch with one another. But perhaps this will be done by the Government Housing Committee now meeting under the chairmanship of Sir Tudor Walters. The subject is also being considered by the Department of Scientific and Industrial Research.

Finally, architects must make a determined effort to win recognition of the services which they are in a position to render to the community, and all this talk of standard plans and types is gravely prejudicing their chance of so doing.

CORRESPONDENCE.

The Aloofness of the Architect.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I read with great interest your note on the Building Trades Parliament. I quite agree with your contention that to be complete any organisation representing the whole craft of building should include the architect. At some future time this consummation may be reached.

Your implications open up some rather pertinent questions. If Hamlet is out of the play, is it not his own fault? While many architects are personally most estimable gentlemen, how many members of the "profession" regard the builder as in any sense their equal? Have architects through their organisations ever done anything to put forward such an idea as co-operation between architects and builders for any common cause whatever? From your remarks one infers that the blame in some way rests with the builder for the estrangement that undoubtedly exists. While the builder may not be entirely free from blame, I submit that by far the greater responsibility rests with the architect. Until he shows some disposition to come down from his pedestal of professional aloofness and interests himself in the point of view of the builder and the workman, you cannot expect the latter to intrude where all past experience has told them they were not wanted.

The writer knows of one town where the local Master Builders' Association has made several efforts to bring about common action for mutual good with the local Society of Architects. Very little success has attended these efforts, and nothing has yet occurred to encourage the builders to renew their approaches.

The day may come when there will be a National Guild, whose function will be to provide all the building service required by the community. In such an organisation architects would, of course, be included, for everyone connected with the process of building, from design to the last step in execution, are in reality builders. Long before that stage of industrial evolution is reached, the architect may find a place in a Building Parliament. If he shows any real desire to co-operate in the process of betterment now beginning he will, no doubt, be admitted to full membership. But if he persists in considering himself a superior person he may only get a ticket for the Strangers' Gallery, if he will deign to take it.

These are plain words, but I rather think you wanted someone to say them.

THOS. FOSTER,
President, North-Western Federation of Building Trades Employers.
16, Hargreaves Street, Burnley, June 14, 1918.

[In the note to which Mr. Foster refers, it was suggested that the exclusion of the architect "is in large measure the fault of the architect himself." Further than that we did not care to go, and we doubt whether Mr. Foster's expansion of the idea is quite fair to the architect. A further note on the subject appears in our Editorial pages.—EDS. A. AND B.J.]

The Welsh Conference on Housing.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—A joint conference of representatives of the South Wales Institute of Architects and the South Wales Building Trades Employers' Federation was held at Cardiff on May 31, 1918, for the purpose of considering the question of providing additional houses for the working classes, so soon as circumstances will permit.

The immediate need of such houses and the responsibility of the authorities to take the necessary steps to provide them were fully realised.

It was recognised that until recent years the enterprise of the builder was responsible for the provision of nearly the whole of the small houses erected, and that the present shortage throughout the country is entirely due to circumstances outside his control, which have made the building of these houses unremunerative.

The conference fully appreciated the efforts being made by the Government and public bodies to deal with the important and difficult problem of providing further housing accommodation, and the societies represented pledged themselves to offer their wholehearted support and assistance to any equitable scheme in this direction.

At the same time, it was decided that in the interests of the community, the attention of every Borough, Urban, and Rural District Council in South Wales and Monmouthshire should be drawn to the danger of surrendering their powers as administrative bodies, to syndicates, trusts, and limited companies, who are now so actively engaged in endeavouring to induce the various authorities to entrust them with the preparation and carrying out of important housing schemes.

The conference further decided to point out that it has been the general custom in the past for building syndicates to resort to sub-contracting and piecework, which practices are conducive to bad workmanship and unrest among the workmen, and for these reasons are condemned by architects, builders, and the trades unions.

The conference, in conclusion, wished to impress upon the various authorities the importance of giving careful and due consideration to the advantages of obtaining the services of the best qualified architects and builders before entrusting their building schemes to trading organisations.

On behalf of the South Wales Institute of Architects:
J. COOK REES, President.
C. H. KEMPTHORNE, Hon. Secretary.
On behalf of the South Wales Building Trades Employers' Federation:
D. ANDERSON, President.
ISAAC WATKINS, Secretary.

The Architect of Aston Hall.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—The association of the name of Inigo Jones with the above building appears to date back at least to the time your journal published Mr. Inigo Triggs's monograph on "Inigo Jones." In his subsequent volume, published by Batsford, no mention is made of the statement even in the list of probables. Mr. Bolton in his paper published first in a periodical, and subsequently in pamphlet forms, refers to Aston Hall, but gives little credence to the authorship of Inigo Jones.

I dealt with this question in my recent lecture before the Royal Photographic Society, having carefully gone over the detail on the spot when last at Birmingham. I can find no trace of work of the known character associated with Inigo Jones, unless it be the rail at the end of the long galler which, however, appears to be of early Charles I period.

Whether Thorpe's son was responsible or not to my mind the main question. There is much late work — Chippendale period carving and Adar period plaster cornices.

The staircase is of mid-Jacobean type wher the old traditions were maintained. On the firs floor the carved enrichments to the stone doo architraves show advanced knowledge of design fo the period involved. Finally, I'm afraid the author ship is shrouded in mystery; but there is no tittle o evidence that Inigo Jones was ever associated wit the work.

ALBERT E. BULLOCK.

THE PLATES.

Dining-room, Belgrave Mansions, Grosvenor Plac

THIS illustration shows a bay of the new dining room of Belgrave Mansions, Grosvenor Place which was formed out of a former shop, etc., o the ground floor. The alteration and decoratio works were executed by Messrs. Geo. Trollope, Son and Colls, builders, from the designs of Mr. Arthur S Bolton, F.R.I.B.A. The modelling and carving wer carried out by Mr. Rogers, of Messrs. Trollope's, fro the architect's drawings. In view of the heav weights overhead, steel stanchions and girders had t be inserted. This steelwork was supplied and fixe by Messrs. M. T. Shaw and Co.

A French Gothic Panel.

A typical example of the elaborate carving tha came from the hand of the craftsmen in Norther France during the late fifteenth century, this panellin is of oak, carved in relief with Gothic tracery. Fou distinct shield-like panels surround a central rosette.

"Antony in Egypt."

Mr. Walcot's fine series of etchings of Roma subjects help us to appreciate the underlying spirit of great epoch. All who have seen the ruins of Rome and have some book knowledge about them, will fee how admirably the Roman imperial ideal is picture for our eyes. In the series Mr. Walcot includes a etching that suggests very effectively the kindre splendours of Egypt. This, by the courtesy o Mr. H. C. Dickins, the owner of the copyright, is reproduced in this issue.

The Mansion House and Cheapside in the 'Forties.

The lithographs by T. S. Boys are an invaluabl pictorial record of London street architecture as i appeared during the early years of last century. I this print, it will be noted, are shown the double atti storeys of the Mansion House, which George Danc the younger removed from his father's building. St Mildred's, Poultry, shown on the right, was pulle down in 1872. Most of the old houses shown in th view have also disappeared in the modern mania fo reconstruction. We should be thankful that St. Mary-le-Bow still rears its graceful spire over the hurryin life of the modern Cheapside.

A Bas-Relief by the Late Albert Hodge.

With the death of Mr. Albert Hodge we lost sculptor of high achievement and higher promise. Th quality of his work is well shown in the bas-relief o "Knowledge Sustaining Youth in His Voyag Through Life," reproduced in this issue. It is vigorous and masculine piece of work in that style o rather flat relief which Mr. Hodge developed s successfully on the model of Donatello. The though underlying this relief is a fine and healthy one, plain and forcibly expressed.

WAR·BVILDINGS·SECTION

THE REPORT ON AGRICULTURAL RECONSTRUCTION.

IN August, 1916, a Sub-Committee of the Reconstruction Committee was appointed to consider and report upon he best methods of increasing home-grown food supplies in the interest of national security. The Chairman was the Earl of Selborne, and the members ncluded Sir Charles Bathurst, Sir Ailwyn Fellowes, Sir Matthew Wallace, Sir Daniel Hall, Mr. R. E. Prothero, Mr. G. H. Roberts, Mr. E. G. Strutt, Mr. C. M. Douglas, Mr. W. J. Fitzherbert-Brockholes, Mr. W. A. Haviland, Mr. C. Bryner Jones, and Mr. G. G. Rea. Later, Sir Horace Plunkett and Dr. Kelly (Lord Bishop of Ross) were added to the Committee, which in January, 1917, issued the first part of its Report, the members being unanimous as to its proposals, with the exception of Sir Matthew Wallace, who signed a Minority Report.

A Comprehensive Survey.

The second part of the Committee's Report, recommending definite reforms in agricultural administration and organisation, is now ready, and the whole Report has been published with an historical preface by Mr. Alexander Goddard, one of the Secretaries of the Committee. Professor Biffen, Mr. W. C. Fielding, Mr. J. R. Cahill, Mr. John Ross, Sir H. Trustram Eve, Mr. T. H. Middleton, and others contribute appendices on different branches of the subject. The whole document forms a most comprehensive survey of British Agriculture, and embodies a drastic policy of Agricultural Reconstruction. Sir Matthew Wallace has again found himself unable to sign the Committee's Report, and has written a dissenting memorandum explaining the points on which he differs from his colleagues.

In their conclusions, the Committee emphasise the fact that the problem has been approached not from the standpoint of the landowner or the farmer but "exclusively in the national interest"; that the policy advocated must stand or fall as a whole; that attempts to apply it piecemeal are doomed to failure—albeit development of the policy must be a gradual matter, extending over a long period of years.

Proposed Reforms.

The Committee proposes that its policy should be carried out with a reorganisation of the agricultural administration of the country, which includes *inter alia* the setting up of National Agricultural Councils in the four countries (delegates from which would meet annually), and of statutory County Agricultural Committees; also the appointment of a Minister of Agriculture for Scotland.

On the subject of agricultural Instruction and Research, the Committee recommends that responsibility for agricultural education should be removed from the County Councils and centralised in the Board of Agriculture; that an improved ruralised curriculum for elementary and secondary schools should be laid down and better prospects provided for teachers; that demonstration farms should be established, a limited number of them to be large farms run on business lines, and that better opportunities should be given for the agricultural education of women.

To promote agricultural organisation and co-operation, the Committee recommends that additional support from national funds should be given to existing societies. To provide credit for agriculture, they urge that the procedure in respect of loans guaranteed by the Board of Agriculture should be cheapened and simplified, and that short term credit through co-operative trading societies and Farmers Central Trading Boards should be provided. Deposits in the Post Office Savings Bank, they consider, should be made available for use by the Central Trading Boards.

Land for Small Holders.

The Committee considers that greater facilities for purchase should be given to small-holders; that the County Councils should be urged to prepare schemes at once for the provision of small-holdings for ex-soldiers and sailors, both as tenants and as owners, and that the Treasury should remove the financial restrictions now placed upon the Councils. They think that the principle of purchase contained in Mr. Jesse Collings' Purchase of Land Bill should be adopted, giving small-holders a right to purchase, such as exists in Ireland.

The Committee regards Village Reconstruction as an important part in the furtherance of its policy, and considers that the development of rural industries and the formation of women's institutes, should be helped forward. To make land more available for small-holders and for village reconstruction, they recommend legislation to stimulate tithe redemption. As to local taxation, they consider that the cost of national services should be more equitably divided between local and national funds.

A number of alterations of the Agricultural Holdings Act are recommended, especially in questions of compensation. Land reclamation and drainage, it is urged, should be dealt with in a thorough and comprehensive manner by legislation. Reclamation and drainage authorities for each of the three kingdoms should be established. Deer forests on land suitable for agriculture and forestry should be used for these purposes, and a special survey should be made to ascertain what deer forests can be so used. The restoration of sheep farms should be gradually accomplished by the extension of existing stocks. The question of wintering stocks of store cattle in some of the forest areas should be thoroughly gone into.

The report is available at H.M. Stationery Office, Imperial House, Kingsway, price 1s. 3d. net. Although it contains no direct reference to building, it very obviously implies many important building interests. Besides landsurveying, drainage, fencing, and similar matters, which must be reconstituted on improved principles, much actual building work is involved.

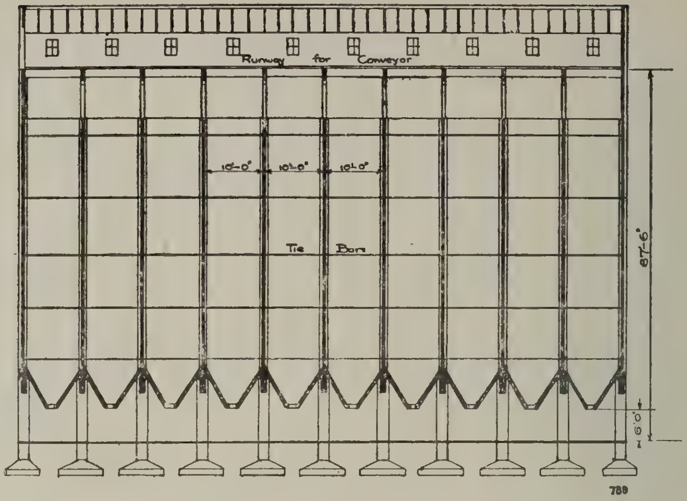
CEMENT SILO, ABERTHAW.

The cement silo illustrated herewith has been designed and constructed recently for the Aberthaw and Bristol Channel Portland Cement Co. Ltd., by Messrs. Lewis Rugg and Co., of Queen Anne's Chambers, Wesminster, under the direction of Mr. A. Havelock Case, M.I.C.E.

The capacity of the silo is 10,000 tons. It consists of twenty bins, nearly 10 ft. wide by 30 ft. long, with an average depth of 45 ft., and a capacity of 500 tons; the dividing walls are 5 in. thick, and the bottoms of the bins are hoppered at an angle of about 60 deg. There are four outlets to each bin, so that the cement can be drawn off at eighty different points.

The ground area of the silo is about 6,700 sq. ft. and it is carried on fifty-five columns, forty four being 24 in. square in section and eleven 24 in. by 36 in., the foundations of which are of solid limestone strata. The design gives an open floor, with six feet of head room, beneath the silo, to be used for packing or laying out the cement. At the same level there are two loading platforms, one on each side of the building, each 22 ft. wide, and each platform has a siding alongside, one on the Barry Railway and one on the Taff Vale Railway. These platforms are roofed over, the roofs extending over the first track of the siding.

The gantry to carry the conveyor is constructed over the bins and is carried on columns resting on the walls of the main building. The height of the silo from the ground level to the top of the gantry is approximately 80 ft., and it is interesting to note that no scaffolding was erected for the work, the whole having been carried out from platforms secured to the centering and ties. The silo is reinforced with indented steel bars supplied by the Indented Bar and Concrete Engineering Co., Ltd., of Westminster.

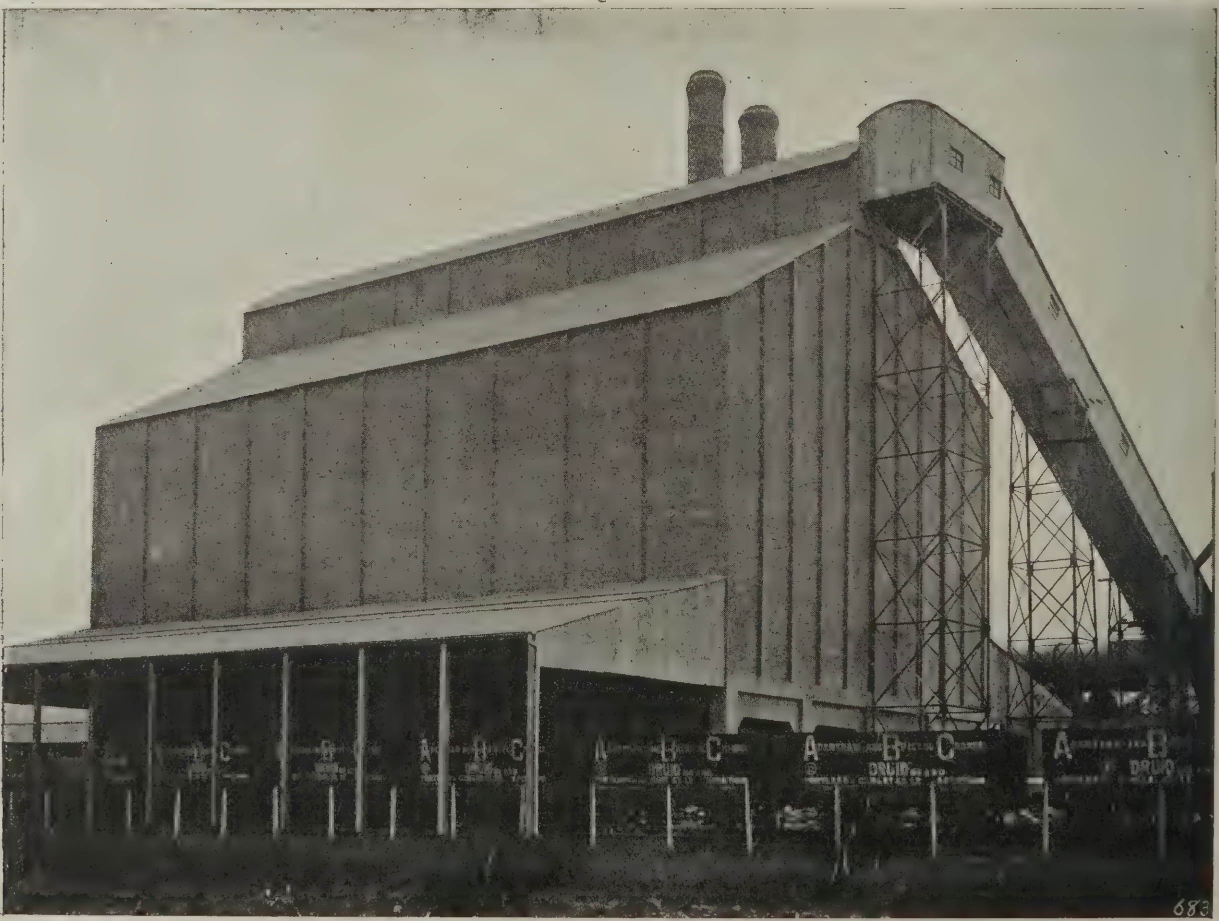


LONGITUDINAL SECTION

LOCAL RESOURCES FOR HOUSING.

Many interesting things were said by Mr. Philip Tilden in an interview with a representative of "The Observer" on the right way of building a house. "The glory of England," he said, "is the variety of her scenery, and the glory of her architecture is the triumph of man over loca materials. The fact that England possesses scenery of greater variety than an other country of her size has not been taken into account by the man who cultivates her, builds upon her, and develop her natural resources.

"Alas! for us, and more so for posterity, hardly a village remains in England now without a blemish of some sor due solely to this one great defect o modern building, namely, the use of wrong materials. In the West and North England possesses the cold granite of th northern world, and throughout he



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length and breadth streaks and patches of the finest building material known to man. Our Portland stone is superb, our hand-made bricks, too; and yet this very economic advantage of England's smallness of size is her undoing when considering her modern architecture, for the very short distances that one has to travel to experience change of scenery and material, makes it possible, and nowadays likely, for a brick house to be placed in a stone country and vice-versa.

"More than ever in future should it be impossible for materials to be carried from one side of England to another, merely at the whim of the house-builder, when he already has material at hand. At a time like this, when every ounce tells in freight, when already 90 per cent. of our steam-power is wasted in shunting, when our roads are already too full of motor traffic, it should be impossible for a man to use up the energy of the country in such a way. And we must hope that in the future England will not slide back into pre-war ways of slackness and luxury, but learn how to organise her natural resources.

"The extreme classicality of the stone moulding in Wiltshire and part of Dorset is the result of the quality of the stone to be found there. The grandeur of East Anglian brick is possible only with the hand-made brick of such a district, and so on. It is necessary that something should be done to make local materials dictate to the speculative builder instead of allowing him to follow his own devices, ignoring what his particular county has given him and ignorant of tradition and of all it stands for. The first thing that is essential is an architectural survey of England, dividing her into architectural districts, corresponding to the supply of local materials.

"The men of to-day, except those few whose interest has been already aroused, do not know what the Cotswold house is like, or its growth from early time until the classical orders have been properly assimilated. They see no difference between the thatch of Devon and the thatch of Suffolk, or the flint of Hampshire and the flint of Norfolk, between the brick of the Midlands and the brick of Sussex, the timber of Hereford and the timber of Kent. The optimist hopes that by educating him in the history of his own country tradition, and showing the very great part that the different materials play in its development, the building of rows and rows of our isolated examples of pink cottages with Welsh slate roofs will be avoided."

"The starting of local industries and the opening of local quarries, brickfields, slate-quarries, and so on, will be an excellent means of distributing labour throughout the country when we are gradually disbanding our great armies. The limiting of materials will to a great extent influence design, for it is obvious that what can be built in stone cannot be the same as that built in brick.

"The future conduct under these circumstances of a man who wishes to build a country seat—for the rich are as devoid of taste as the poor—will be for him to approach the architectural centre of the district in which he is to build and discover what materials are available. This architect should then, being limited to material, be at liberty to study in the local architectural library examples of every kind and size of house already erected in that district. His business is then to produce something which draws its inspiration from local materials and examples, and, if possible, to improve on old designs and old methods."

NEWS ITEMS.

A Correction.

We regret that, in our recent notice of the exhibition of drawings by the late Captain Charles Gascoyne, it was stated, through an unfortunate slip of the pen, that the pictures were to be sold "for the benefit of the artist's widow." Captain Gascoyne, of course, was a bachelor. The lady who will benefit by the sale of the drawings is the artist's mother.

Demonstrations with Metallic Liquids.

Messrs. G. Lillington and Co., Ltd., have just opened some new showrooms at 40, Holborn Viaduct, E.C.1, where they have a large number of practical demonstrations of the effect of their metallic liquids upon various materials. Metallic liquids are now widely used for strengthening and hardening concrete, for fire-proofing all classes of materials, and for preserving iron, steel, etc.

Order of the British Empire for Architects.

The following members of the Society of Architects have been appointed by His Majesty the King as Officers of the Most Excellent Order of the British Empire for services in connection with the war: Captain Henry Leon Cabuche, Assistant Controller Department of Engineering, Ministry of Munitions; Charles Tamlin Ruthen, Esq., F.R.I.B.A., Deputy Controller of Accommodation and Chief Inspector H.M. Office of Works.

A Sunderland Improvement Scheme.

The Sunderland Corporation recently purchased a number of shops at the corner of High Street West and Bridge Street, the total cost being £26,000. They have now drawn up a scheme for removing the shops and widening the corner, so that when the work is done High Street will be 68 ft. in width at the end. A piece of land will be left after the improvement is made, and this the Corporation are offering for sale. It will form one of the best shop sites in the town. The improvement will not be carried out for some time yet, as the lease of several of the shops has four years to run.

Institute of Scottish Architects.

The report by the President and Council submitted to the second annual convention of the Institute of Scottish Architects in Glasgow on Thursday week states that owing to the war the request for the services of architects has been steadily decreasing, but it is confidently hoped that on the cessation of hostilities the profession will have plenty of work entrusted to them. The Council have devoted much attention to the housing of the working classes after the war. They offered to the Local Government Board suggestions as to how the best designs might be obtained for such schemes, and they discussed with the Board the method of carrying out the competition for designs of houses and the laying out of sites. The Council believe that their action has gone far in furthering the interests of the profession, while the result will be undoubtedly to the benefit of the whole community.

Birmingham and Civic Beauty: A Society Formed.

On June 10 it was decided to form a Civic Society at Birmingham, the object of which is to stimulate wider concern for beauty in the city. Lord Plymouth, in supporting the scheme, insisted that the society might exercise a potent influence on the great reconstruction schemes after the war. He described the aims and methods of the London Society, of which he is president, and emphasised the importance of foresight and a central plan in town development. Mr. Neville Chamberlain said that hitherto there had been no society to focus public opinion on matters of taste in architecture. The city had been allowed to grow up in a haphazard way and with unfortunate results. He believed that the mere existence of a society of that kind which made it its object to see that beauty with utility should be considered in all the outward aspects of the city would make people think of the artistic and economic side of what they were producing.

WAYGOOD-OTIS, LIMITED.

The report of the directors, submitted to the shareholders of Waygood-Otis, Ltd., at the eighteenth ordinary general meeting, held at the Cannon Street Hotel, Cannon Street, E.C., yesterday (Tuesday, June 25), showed that the profit for the year, after providing for all expenses and depreciation, amounts to £22,281 0s. 6d., to which must be added the balance of last year's profit and loss account, £8,122 1s. 1d., making a total of £30,403 1s. 7d. Of this sum the dividend paid on the Preference shares absorbs £9,000, there has been placed to reserve for depreciation of investments £2,000, to reserve account £2,000, leaving a balance of £17,403 1s. 7d. Out of this sum the directors proposed to pay on July 15 next a twelve months' dividend on the Preference shares for the year ended July 15, 1917, leaving a balance of £8,403 1s. 7d. to be carried forward.

OBITUARY.

Mr. William Gott, of Leeds.

The death of Mr. William Gott, of the firm of Messrs. Wm. Gott and Son, Hunslet Mill, Leeds, has taken place at his residence, Brudenell Road, Leeds. Mr. Gott had been connected with the Leeds building trade for the last forty years, and had been interested in the erection of many important buildings in the West Riding. He was sixty years of age, and leaves a widow, two sons, and one daughter.

Mr. F. R. Farrow, F.R.I.B.A.

We greatly regret to record the death, on June 17, at the age of sixty-two, of Mr. Frederic Richard Farrow, F.R.I.B.A., editor of "The Architect." Mr. E. Swinfen Harris, who found him "a firm and true friend for between forty and fifty years," writes in our contemporary: "Besides his own household, where he leaves a widow and three daughters to mourn their loss, there will be very many who will miss his cheery smile and hearty hand-grip, and none can do this more than the writer of these lines, who has known him intimately, both professionally and privately, for so many years, one who has worked beside him, travelled with him, both at home and abroad, and seen him in so many and varied positions of life, and can look back upon it all without recalling aught but the memory of an honest and honoured loyal English heart." Our own impressions, derived from casual, but always cordial, contact with Mr. Farrow, convince us that this fine eulogy is thoroughly justified.

A WOMAN'S VIEWS ON THE LABOUR-SAVING HOUSE.*

BY MRS. C. S. PEEL.

WE have come to that stage in our development when people resent being required to undertake unnecessary labour. Educated, intelligent people naturally dislike having to do hard, dirty work which is quite unnecessary. If we would take the trouble to use our brains and the mechanical appliances which were available before the war, and will be available again after, I do not think it is an exaggeration to say that quite a third, if not half of the distasteful dirty work which we now perform in our houses might be eliminated provided those houses were built, planned, and furnished in an intelligent fashion.

The Servant Difficulty.

You all know that there is a servant problem. Personally, I think we are going to suffer from a greater shortage of domestic labour in the future than we are suffering from even at present. When I say this I am always told that servants will have to go back to service after the war. I am not altogether convinced that that is so; but even if economic conditions drive them back into service for a few years, do you want angry, resentful people to come and work in your houses simply because they cannot get anything else to do? Surely that would be a most unpleasant state of affairs; therefore, let us combine and make up our minds how we are to lighten the work of our houses, so that we may make domestic labour more attractive and then benefit the servant or the woman who is her own servant. Let us do our thinking now and have our plans ready. It is out of the question to make many changes at the moment. To obtain a gas stove or an electric cooker is all but impossible. It is difficult even to induce a man to put a new washer on the bathroom tap! It is necessary to obtain a permit in order to paint a house, and the amount which may be spent on building is limited, so that it is evident we cannot do very much until after the war. Meanwhile, here are some suggestions which I should like you to consider carefully, because it is apparent that as our towns cannot be rebuilt we shall have to go on living in the houses which exist and find out methods by which they may be made habitable according to modern ideas.

Some Typical Faults.

Let us deal with London for the moment, though, of course, the same conditions exist elsewhere. I want you to make a mental picture of a house in a well-known road in Pimlico, for example. Steep stairs, deep, dark basement, one bathroom, coal range, and coal fires, no service lift.

You cannot keep such houses clean and live in them in the way that people who can afford to pay their rents expect to live, without two and a half servants, and, if you have children three, or possibly four. After the war are most of us going to be able to afford to live in houses which necessitate the keeping of several servants? Wages are mounting steadily; I doubt if they will descend, and, personally, I do not wish them to do so.

The cost of building has risen greatly since the war, and must remain high for some time; but, even so, I cannot but think that it would pay to alter these houses.

Abolish the Basement.

The first thing which must be done is to do away with the basement. I said this to an architect the other day, and he said "Rats!" No, he was not gibing at me. He really did mean rats—in those basements—running about. Still, I think we might get over the rat difficulty and shut up the basements, using them only as box or store rooms.

Improved Planning.

The house proper should begin on the first floor, which consists of a front dining-room, a back dining-room, and a smoking-room. I would make the front room the dining-room, with a buttery hatch opening into the back dining-room, which should become the kitchen, while the smoking-room would be a pantry. The hot-water system might be worked by gas or by a furnace, burning coke, rubbish, and a little coal, and a second bathroom should be built so that there need not be washstands in the bedrooms. This does away with a considerable amount of housemaid's work. If possible, I would have radiators on the landings, and, possibly, in some of the rooms. Gas fires are so well ventilated nowadays, and can be made so attractive in appearance, and there is no objection, as far as I can see, to their use.

Now, by doing away with all the basement cleaning, running up and down stairs to open the front door, and the work of carrying heavy trays up and down stairs, which is so exhausting, by eliminating grate cleaning, except in one room, coal carrying, and the cleaning of fire irons, fenders and coal boxes, by the saving of dust which fires cause, by doing away with washstand work, by substituting an electric or gas cooker for the kitchen range, and thereby saving you the objectionable task of cleaning the flues, and in addition by not overcrowding the house with furniture and littering it with senseless ornaments, you will certainly have lessened the work of that house by a third to a half, thereby making it possible to reduce the bill for wages and fuel and the upkeep bill.

Adaptation of Old Houses.

Here is another instance of what may be done with an existing house of the ten-roomed order built eighty or one hundred years ago. If the area is so narrow that sufficient air and light cannot penetrate to the rooms have nothing to do with it, if you can possibly avoid it, unless, of course, you require so few rooms that you can shut up the basement as already suggested. I am presuming in this case, however, that the house is too small unless the basement rooms are employed. The large front room may be used as a pantry, servants' sitting-room, and linen-room combined. The small back room, with water-heater and gas or electric cooker, if carefully furnished will make an excellent kitchen and scullery combined. In such a house there is probably no larder, and this must be built, for it is of vital importance to health that food should be kept in a light, cool, and well-ventilated larder. There is a garden of some kind at the back of this house which could be made attractive, and I have found it possible to extend the area so that the kitchen neither dark nor airless. When the se vants can have a pleasant room in whic to sit there is no need to have a sculler as well as a kitchen; it merely makes or more place to clean. There should be service lift, and this could be arranged that it is fed from the kitchen and pantr and that it could be opened both into th dining-room and smoking-room, which such houses are generally connected b double doors. A cloak-room may b arranged on the ground floor, and if tw bathrooms with fitted basins are built ou at the back, one over the other, the hous with the addition of telephone bells an gas fires, becomes quite a convenien labour-saving dwelling. If a radiator ca be placed in the front hall and on the fir landing the passage and stairs will alwa be warm, which greatly lessens th amount of heating needed in the room Thus I find from personal experience tha at the cost of fuel for one very moderat sized furnace the water for two bath rooms, three hand basins, three sinks, an one large radiator in the hall can b heated. The furnace is so arranged tha dishes which need long and gentle cookin are placed upon this, and it makes a con siderable saving in the gas or electricit bill.

The Homes of the Poor.

Very much needs to be done, not onl in the homes of the well-to-do and mor or less well-to-do, but also in the homes o the poor, many of which are a disgrace t the nation. Only the other day, I went t pay a visit at a house in which lives woman who has brought up ten childre From the door a steep little flight of stair leads to the basement living-room. Clos to the pavement is a little grating whic lights that living-room. If, and only if the door of the room which opens into dank little yard, is kept open the room i fairly light and ventilated to some degree The window cannot be opened because th dust and dirt from the pavement would b blown in and the children would thro stones and dirt into the room. In thi house were two bedrooms—two bedroom for father, mother, and ten children That woman was not dirty: she did he very best to keep the house clean, and i defied her utmost efforts.

Women Can Solve the Problem.

How can people exist decently in suc conditions as these? We have to solve the problem of housing the working classe healthily and cheaply. To do this, not only must new houses be built, but the existing ones must be altered, especially those which were originally built for middle-class residents, and are now inhabited by several working-class families. Women are now giving much time and thought to the housing question: it is for them to decide what it is that they want, then the architect and the builder must discover the best and cheapest methods of providing what is wanted, thus rendering the houses of the people homes and not dwelling places, which by their evil construction and senseless arrangement eat up the health and energies of those who inhabit them.

Mrs. Katherine Gordon, Mrs. Sanderson Furness, Mr. Wyebrow, Miss Maud Jeffreys, and others joined in the discussion which followed.

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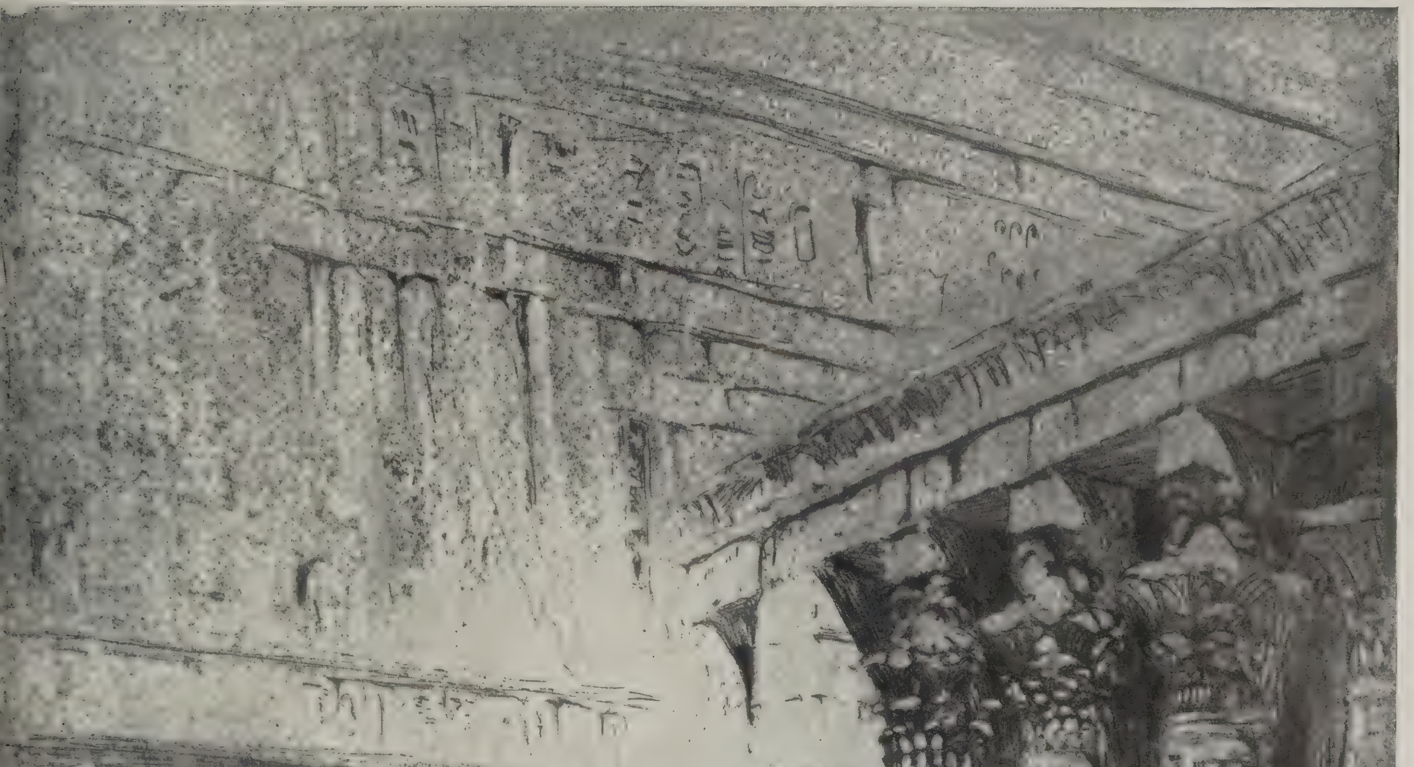
* Extracts from an address to the Women's Institute.



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(From the Etching by William Walcot.)

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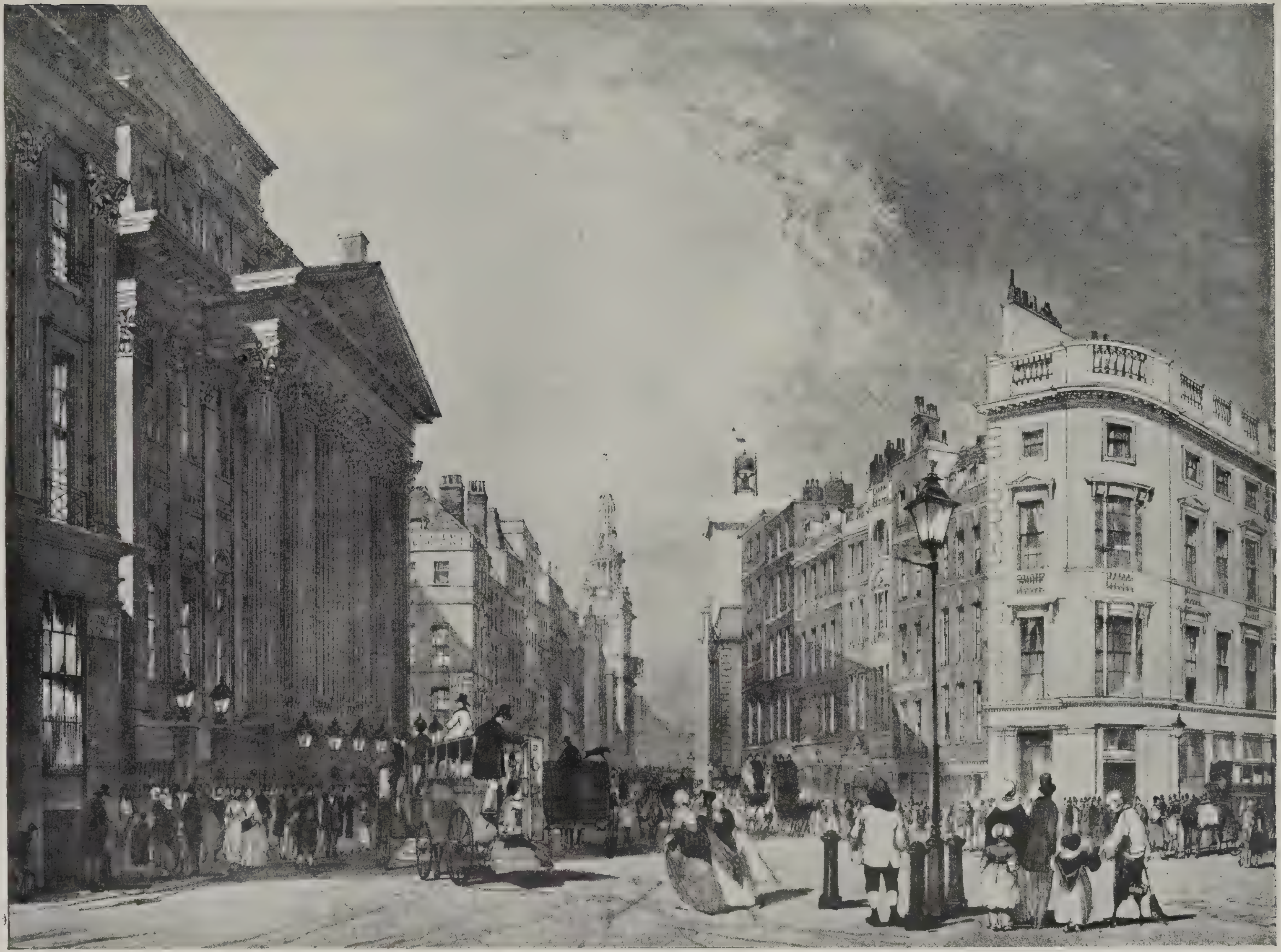

ARCHITECTURAL DRAWINGS AND SKETCHES. XXIII.—LONDON IN THE 'FORTIES: THE MANSION HOUSE AND CHEAPSIDE.

(*From the Lithograph by T. S. Boys.*)

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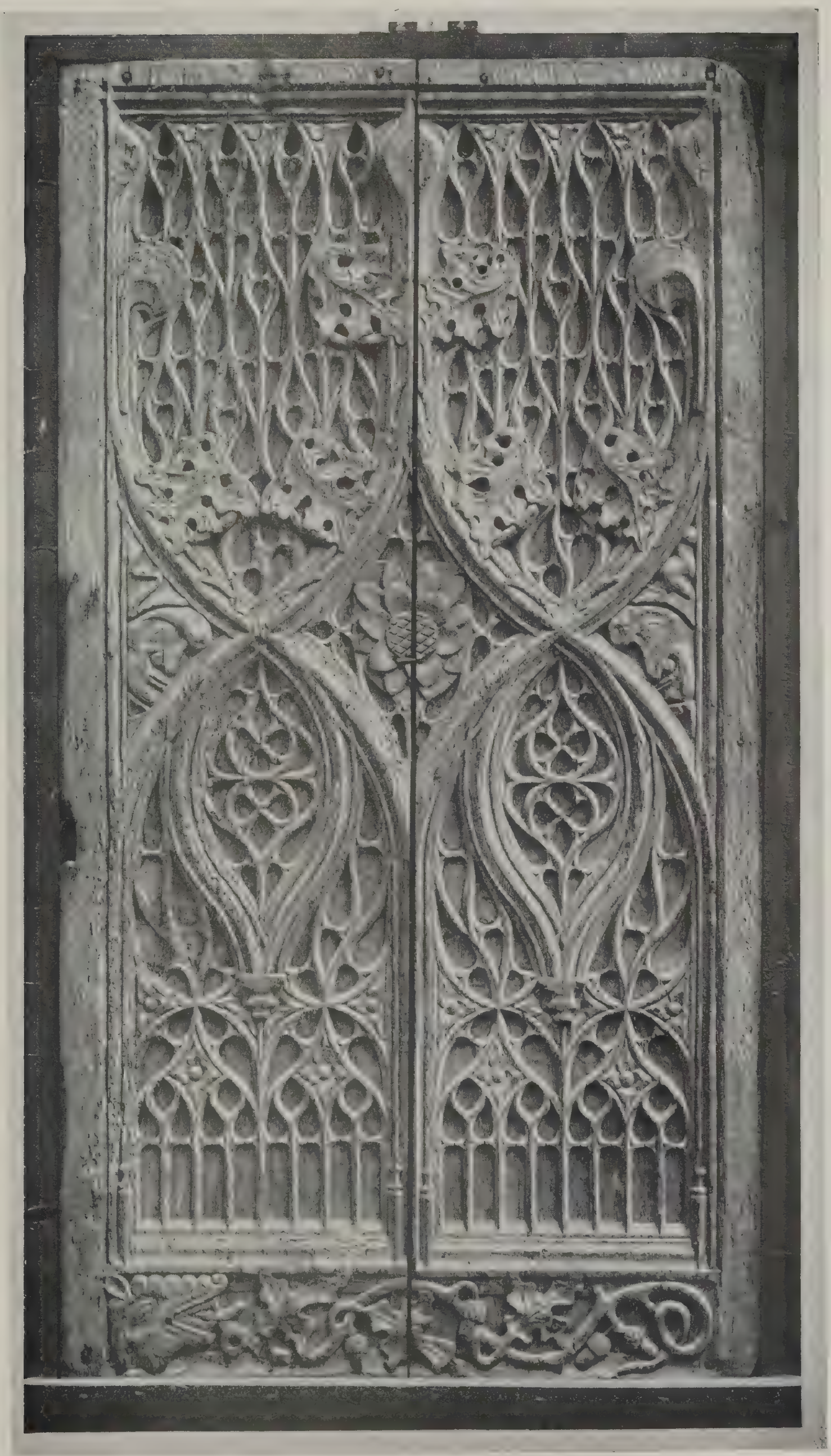

DETAILS OF CRAFTSMANSHIP (SERIES III.). XXVIII.—CARVED OAK PANEL (FRENCH: LATE FIFTEENTH CENTURY).

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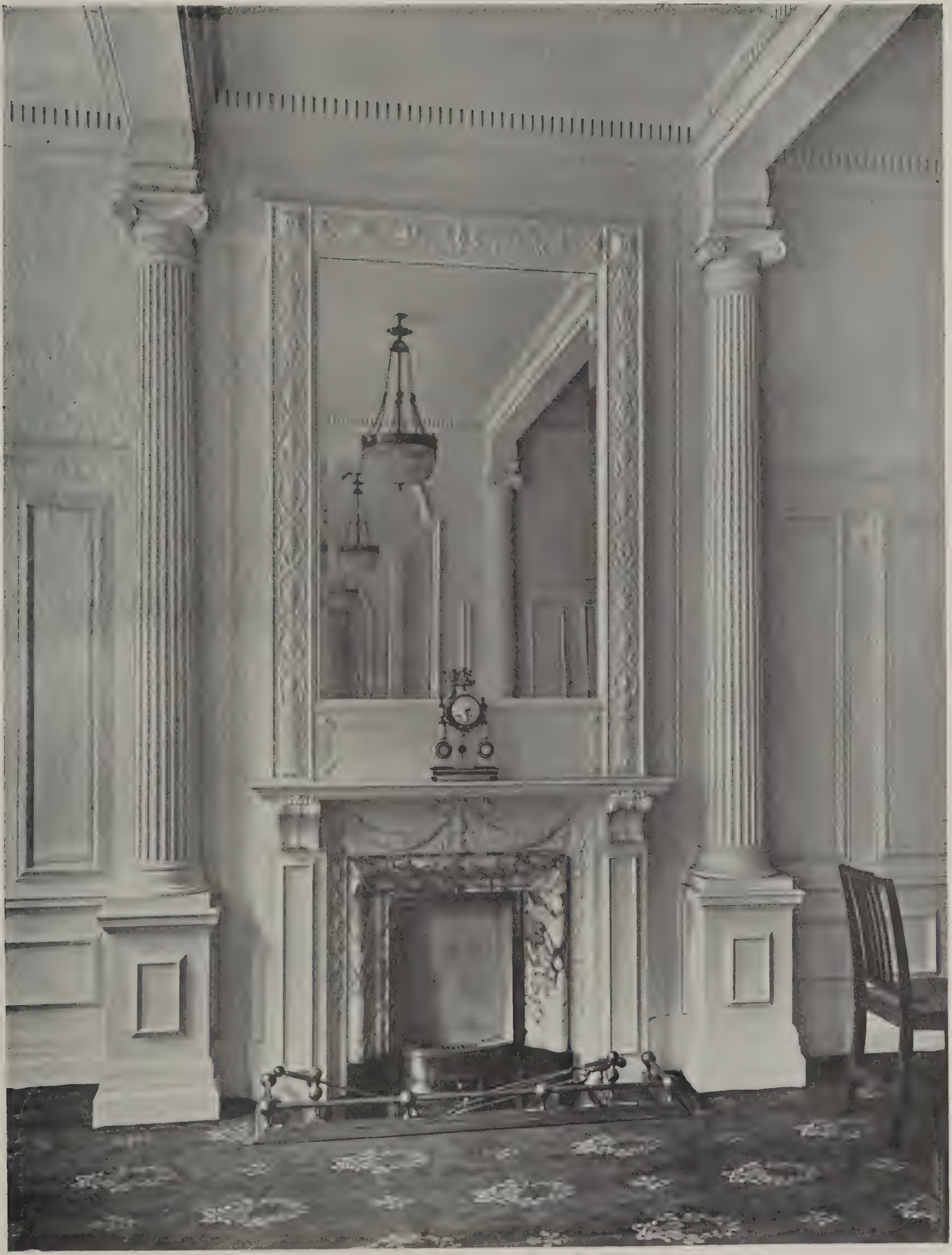

CURRENT ARCHITECTURE (SERIES V.). XXXVII.—DETAIL OF NEW DINING-ROOM, BELGRAVE MANSIONS, GROSVENOR PLACE, LONDON.
ARTHUR T. BOLTON, F.R.I.B.A., ARCHITECT.
(Royal Academy Exhibition.)

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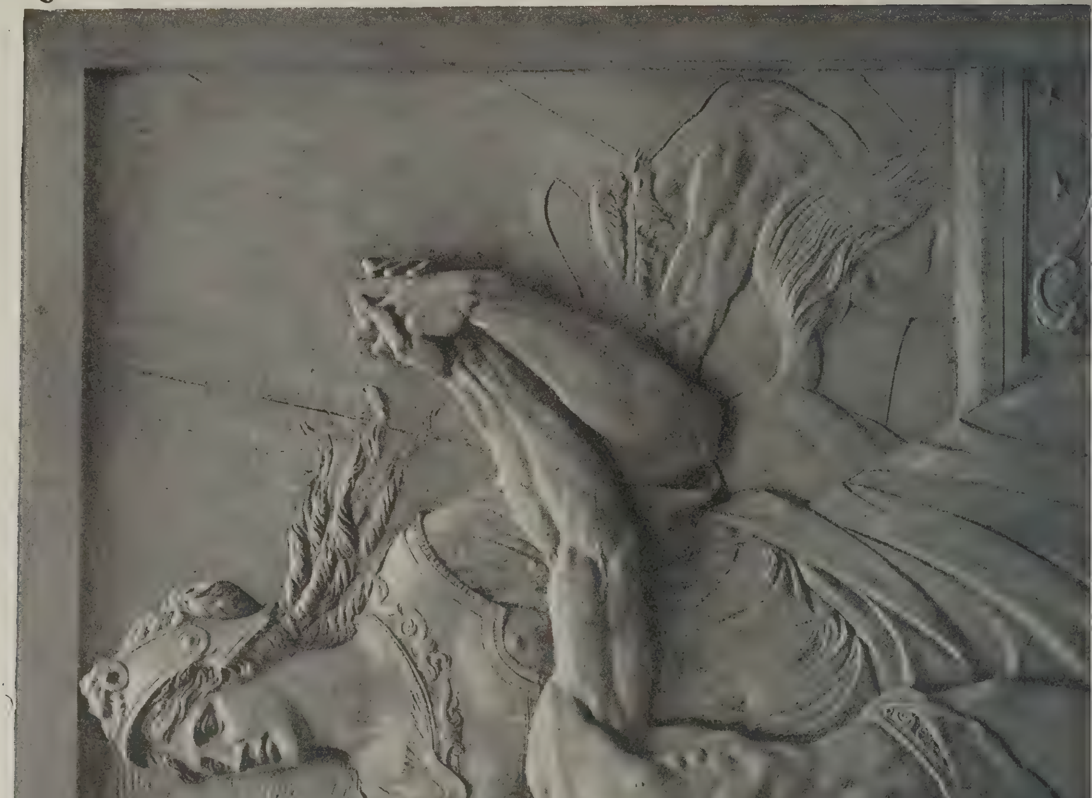

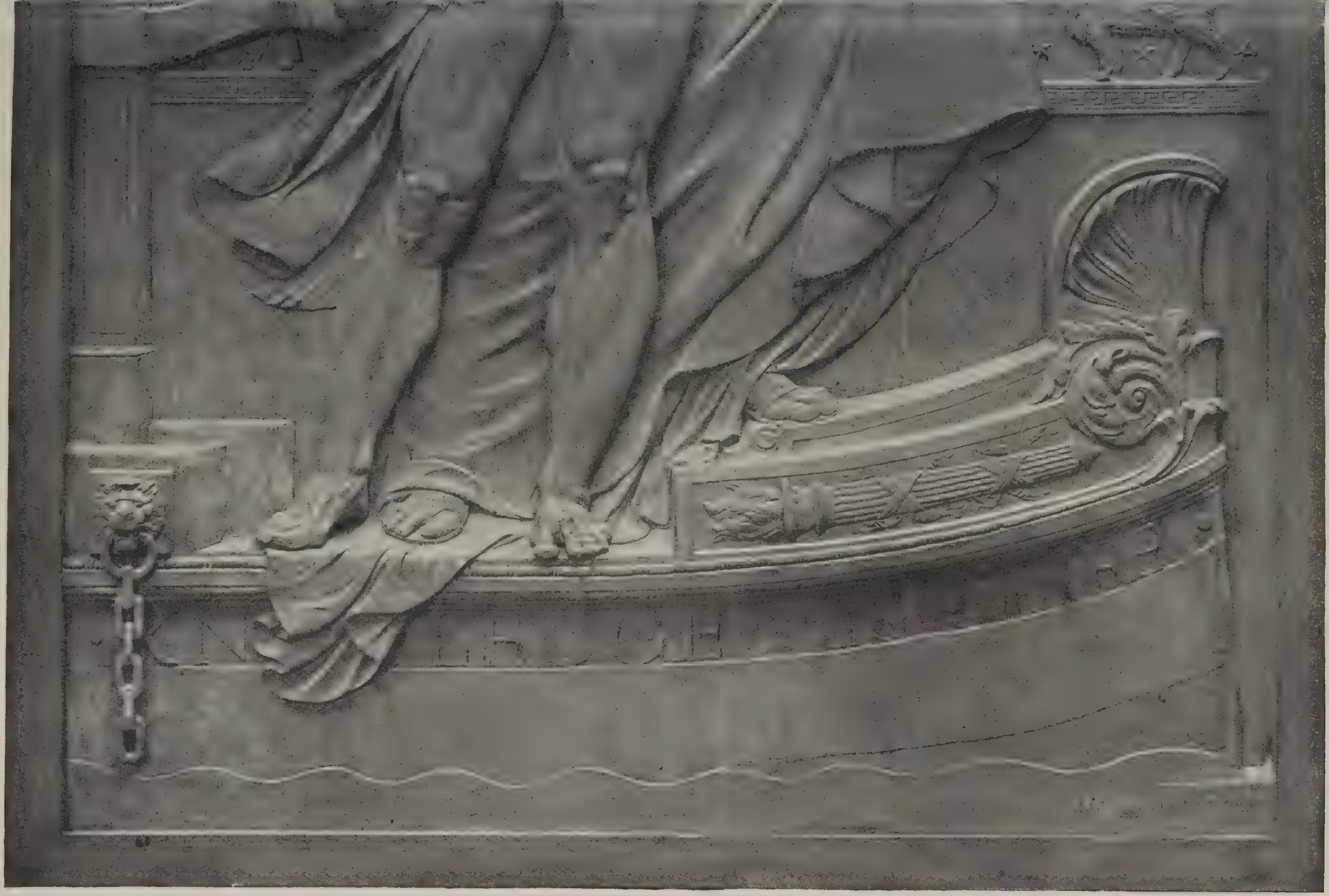

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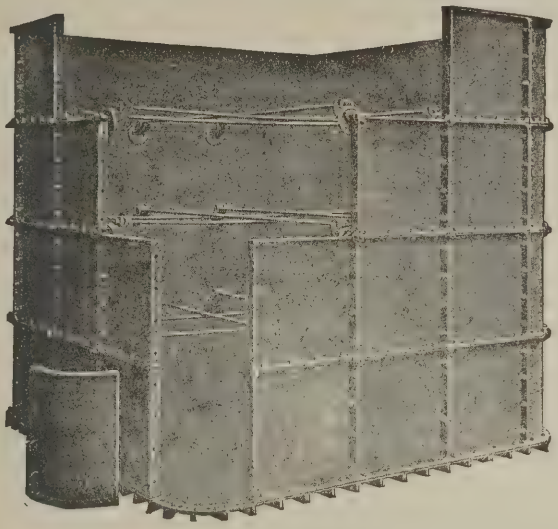

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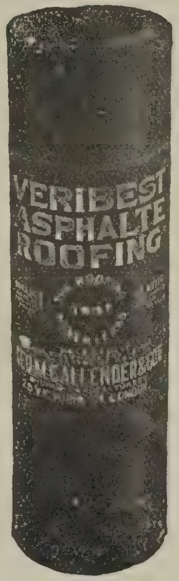

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BUILDING.

June 26.—**REPAIRS. Swansea.**—Repairs, etc., to Cottage Homes for the Union. Specifications may be seen at the Union Offices, Alexandra-road, Swansea. Tenders to Llewn. Jenkins, Clerk, Union Offices, Alexandra-road, Swansea.

June 27.—**FOUNDATIONS. Bristol.**—Construction of main and machinery foundations at the Feeder-road Electricity Works, St. Philip's, Bristol, for the Corporation. Specification and form of tender, with bill of quantities, can be obtained on deposit of £2 2s. with H. Faraday Proctor, M.Inst.C.E., M.I.E.E., Chief Engineer and General Manager, Electricity Department Exchange, Corn-street, Bristol.

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June 27.—**COTTAGES, Quarrington Hill, Durham**.—Construction of Four Aged Miners' Cottages from an old school at Quarrington Hill for East Hetton Miners' Lodge. Plans and specifications can be seen by applying to Mr. Dixon, Master Mason, East Hetton Colliery, Coxhoe. Tenders to be sent to T. Foster, Miners' Secretary, Kelloe, Coxhoe.

June 28.—**PIGGERIES. Menston (near Leeds).**—Erection of 20 Piggeries at Stocks Hill, Menston, for the Pig Club. Plan and specification can be seen by appointment and any further particulars obtained from Harry Riding, Architect and Surveyor, Council Offices, Menston, near Leeds, to whom tenders are to be sent.

June 29.—**ALTERATIONS, etc., Trowbridge (Wilts).**—Alterations, additions, repairs, and renovations, etc., at various Council schools during the summer vacation, 1918, for the Wilts C.C. Education Committee, in accordance with plans and specifications prepared by the County Surveyor. Plans and specifications and forms of tender may be obtained on or after May 31 upon written application to J. G. Powell, County Surveyor, Trowbridge, to whom tenders are to be sent.

July 4.—**REPAIRS, etc., London, W.**—Sundry decorative Works and Repairs at the Infirmary, Marloes Road, Kensington, for the Kensington Board of Guardians. Specification and form of tender can be obtained at the office of W. R. Stephens, Clerk, Guardians' Offices, Marloes Road, Kensington, W., to whom tenders are to be sent.

No date.—**CONVERTING, Whittington (Salop).**—Converting buildings at Whittington into a Cheese Factory. For full particulars, apply to J. Cartwright, Rose Hill, Whittington.

PAINTING.

June 26.—**PAINTING SCHOOLS, Edinburgh.**—Execution of Painter Work, George Heriot's School and Heriot-Watt College, for George Heriot's Trust. Specifications and schedules of measurement can be obtained from John Anderson, F.S.I., Superintendent of Works. Tenders to be lodged with Peter Macnaughton, S.S.C., Clerk, Heriot Trust Offices, 20, York Place, Edinburgh.

June 28.—**PAINTING, etc., Rhymney.**—Painting, etc., all outside wood and ironwork at the premises of the Rhymney Workmen's Library and Institute. Particulars of work to be done can be obtained from G. Williams, Librarian, to whom tenders are to be sent.

July 1.—**PAINTING SCHOOLS, Barrow.**—Painting certain Schools for the Town Council, in accordance with specification, which may be obtained at the office of the Borough Engineer, Town Hall. Tenders to L. Hewlett, Town Clerk.

Late Contracts continued on page xvi.

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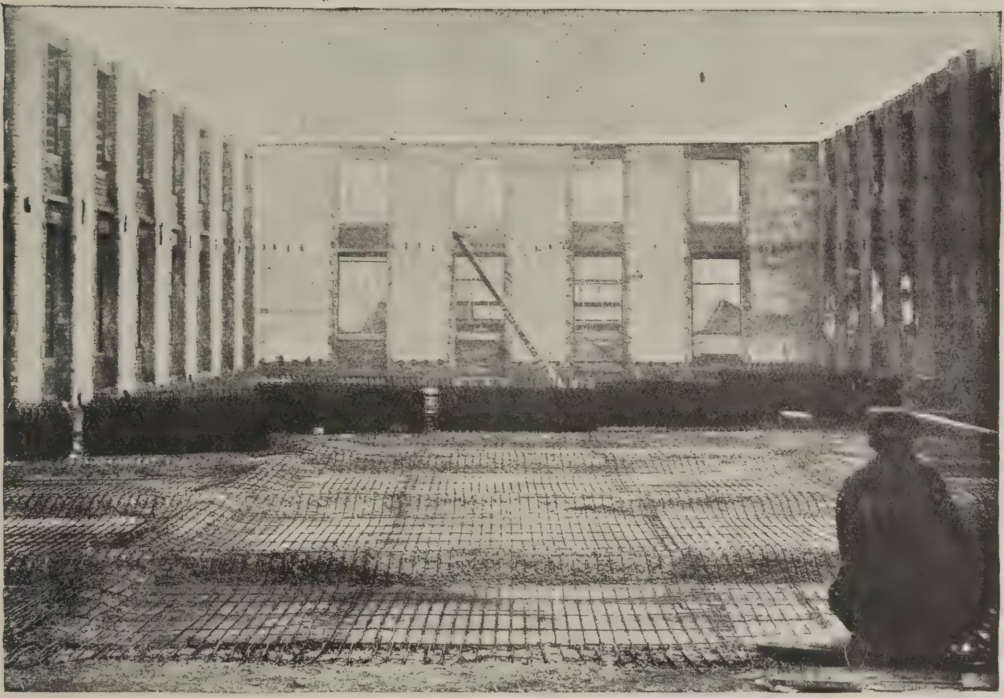

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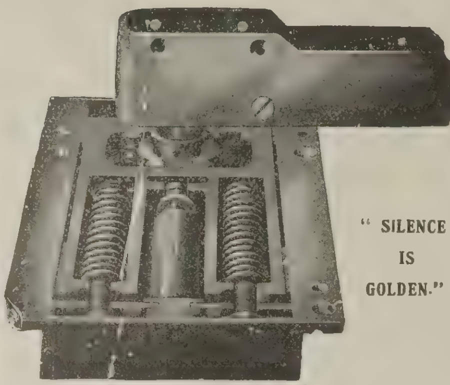

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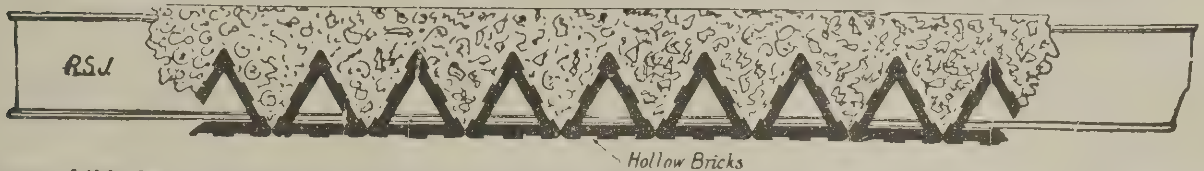

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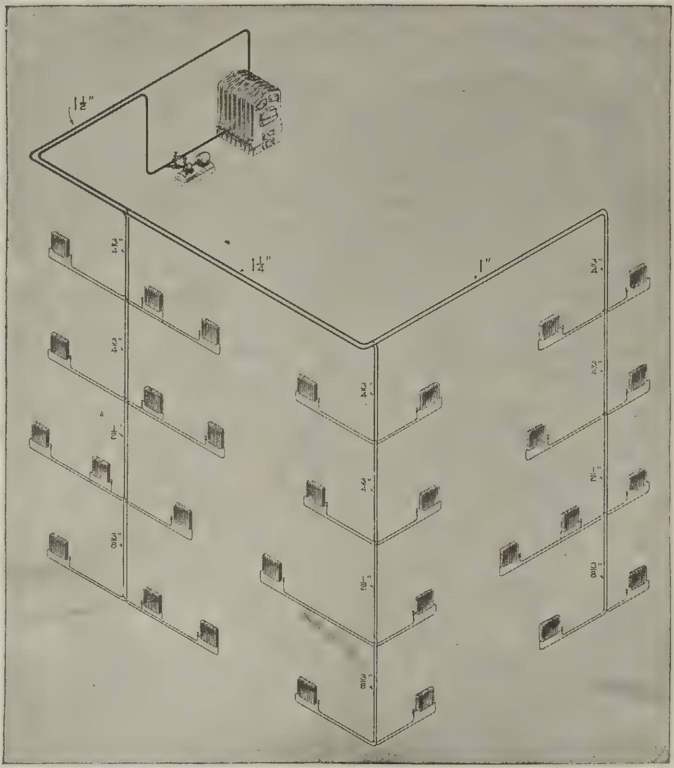

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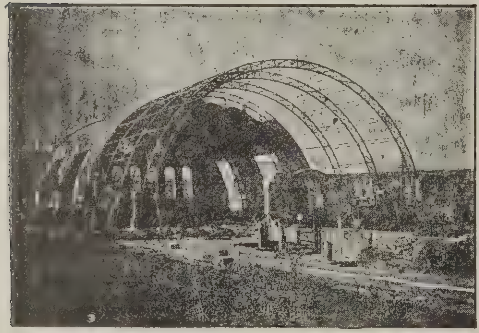

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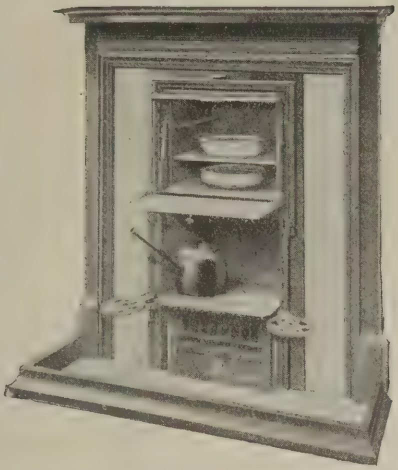

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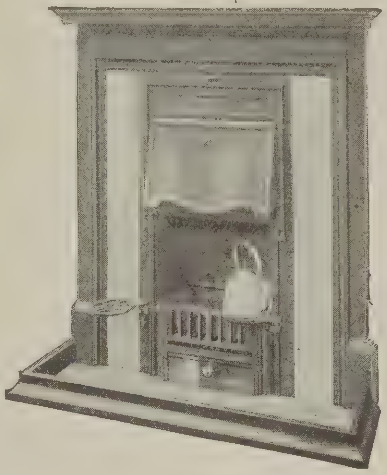

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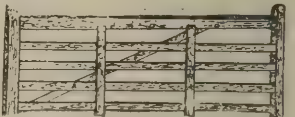

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